



**Off-base Drinking Water Sample Results,
Level 2 Laboratory Report, Level 4 Laboratory Report,
Electronic Data Deliverable, Data Validation Report,
and the Sample Location Figure, SDG 1800080**

*Marine Corps Outlying Landing Field Atlantic
MCAS Cherry Point NC*

February 2019

January 22, 2018

Vista Work Order No. 1800080

Ms. Tiffany Hill
CH2M Hill
1100 NE Circle Blvd. Suite 300
Corvallis, OR 97330

Dear Ms. Hill,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on January 12, 2018. This sample set was analyzed on a rush turn-around time, under your Project Name 'MCOLF ATLANTIC'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,



Martha Maier
Laboratory Director



Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.

Vista Work Order No. 1800080**Case Narrative****Sample Condition on Receipt:**

Eight drinking water samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology.

Analytical Notes:**EPA Method 537**

Samples "CH-AT-2RW58-0118", "CH-AT-2RW58B-0118" and "CH-AT-2RW58C-0118", as well as the Matrix Spike and Matrix Spike Duplicate, contained particulate and were centrifuged prior to extraction.

The samples were extracted and analyzed for the UCMR list of six PFAS using EPA Method 537.

Holding Times

The samples were extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Laboratory Fortified Blank (LFB) and Laboratory Reagent Blank (LRB) were extracted and analyzed with the preparation batch. No analytes were detected in the Laboratory Reagent Blank above 1/2 the LOQ. The LFB recoveries were within the method acceptance criteria.

The surrogate recoveries for all QC and field samples were within the acceptance criteria.

A Laboratory Fortified Sample Matrix (LFSM) and Laboratory Fortified Sample Matrix Duplicate (LFSMD) were performed on sample "CH-AT-1RW146-0118". The analyte recoveries and RPDs were within the method acceptance criteria.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1800080-01	CH-AT-2RW58-0118	11-Jan-18 09:28	12-Jan-18 12:52	HDPE Bottle, 250 mL HDPE Bottle, 250 mL
1800080-02	CH-AT-2FB58-0118	11-Jan-18 09:28	12-Jan-18 12:52	HDPE Bottle, 250 mL HDPE Bottle, 250 mL
1800080-03	CH-AT-2RW58B-0118	11-Jan-18 09:30	12-Jan-18 12:52	HDPE Bottle, 250 mL HDPE Bottle, 250 mL
1800080-04	CH-AT-2FB58B-0118	11-Jan-18 09:30	12-Jan-18 12:52	HDPE Bottle, 250 mL HDPE Bottle, 250 mL
1800080-05	CH-AT-2RW58C-0118	11-Jan-18 09:35	12-Jan-18 12:52	HDPE Bottle, 250 mL HDPE Bottle, 250 mL
1800080-06	CH-AT-2FB58C-0118	11-Jan-18 09:35	12-Jan-18 12:52	HDPE Bottle, 250 mL HDPE Bottle, 250 mL
1800080-07	CH-AT-1RW146-0118	MS/MSD11-Jan-18 10:33	12-Jan-18 12:52	HDPE Bottle, 250 mL HDPE Bottle, 250 mL HDPE Bottle, 250 mL HDPE Bottle, 250 mL HDPE Bottle, 250 mL
1800080-08	CH-AT-1FB146-0118	11-Jan-18 10:33	12-Jan-18 12:52	HDPE Bottle, 250 mL HDPE Bottle, 250 mL

ANALYTICAL RESULTS

Sample ID: LRB					EPA Method 537					
Client Data Name: CH2M Hill Project: MCOLF ATLANTIC					Laboratory Data Lab Sample: B8A0083-BLK1 Column: BEH C18					
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.443	5.00	10.0		B8A0083	16-Jan-18	0.250 L	18-Jan-18 17:52	1
PFOA	ND	1.08	5.00	10.0		B8A0083	16-Jan-18	0.250 L	18-Jan-18 17:52	1
PFOS	ND	1.04	5.00	10.0		B8A0083	16-Jan-18	0.250 L	18-Jan-18 17:52	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	85.0	70 - 130			B8A0083	16-Jan-18	0.250 L	18-Jan-18 17:52	1
13C2-PFDA	SURR	90.0	70 - 130			B8A0083	16-Jan-18	0.250 L	18-Jan-18 17:52	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit
Results reported to the DL.

When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

Sample ID: LFB					EPA Method 537					
Client Data Name: CH2M Hill Project: MCOLF ATLANTIC					Laboratory Data Lab Sample: B8A0083-BS1 Column: BEH C18					
Analyte	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	15.9	17.7	90.0	70-130		B8A0083	16-Jan-18	0.250 L	18-Jan-18 18:54	1
PFOA	20.7	20.0	103	70-130		B8A0083	16-Jan-18	0.250 L	18-Jan-18 18:54	1
PFOS	16.7	18.5	90.6	70-130		B8A0083	16-Jan-18	0.250 L	18-Jan-18 18:54	1
Labeled Standards	Type		% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR		92.4	70- 130		B8A0083	16-Jan-18	0.250 L	18-Jan-18 18:54	1
13C2-PFDA	SURR		106	70- 130		B8A0083	16-Jan-18	0.250 L	18-Jan-18 18:54	1

Sample ID: CH-AT-2RW58-0118					EPA Method 537					
Client Data Name: CH2M Hill Project: MCOLF ATLANTIC Location: Drinking Water Matrix: Drinking Water Date Collected: 11-Jan-18 09:28					Laboratory Data Lab Sample: 1800080-01 Date Received: 12-Jan-18 12:52 Column: BEH C18					
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.442	4.98	9.97		B8A0083	16-Jan-18	0.251 L	19-Jan-18 00:17	1
PFOA	2.85	1.08	4.98	9.97	J	B8A0083	16-Jan-18	0.251 L	19-Jan-18 00:17	1
PFOS	1.43	1.04	4.98	9.97	J	B8A0083	16-Jan-18	0.251 L	19-Jan-18 00:17	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	81.7	70 - 130			B8A0083	16-Jan-18	0.251 L	19-Jan-18 00:17	1
13C2-PFDA	SURR	97.3	70 - 130			B8A0083	16-Jan-18	0.251 L	19-Jan-18 00:17	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit
Results reported to the DL.

When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

Sample ID: CH-AT-2FB58B-0118					EPA Method 537					
Client Data Name: CH2M Hill Project: MCOLF ATLANTIC Location: Drinking Water Matrix: Drinking Water Date Collected: 11-Jan-18 09:30					Laboratory Data Lab Sample: 1800080-04 Date Received: 12-Jan-18 12:52 Column: BEH C18					
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.440	4.96	9.94		B8A0083	16-Jan-18	0.252 L	19-Jan-18 00:54	1
PFOA	ND	1.07	4.96	9.94		B8A0083	16-Jan-18	0.252 L	19-Jan-18 00:54	1
PFOS	ND	1.03	4.96	9.94		B8A0083	16-Jan-18	0.252 L	19-Jan-18 00:54	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	85.9	70 - 130			B8A0083	16-Jan-18	0.252 L	19-Jan-18 00:54	1
13C2-PFDA	SURR	90.8	70 - 130			B8A0083	16-Jan-18	0.252 L	19-Jan-18 00:54	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit
Results reported to the DL.

When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

When reported, PFHxS, PFOA and PFOS include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CH-AT-2FB58C-0118										EPA Method 537	
Client Data Name: CH2M Hill Project: MCOLF ATLANTIC Location: Drinking Water Matrix: Drinking Water Date Collected: 11-Jan-18 09:35					Laboratory Data Lab Sample: 1800080-06 Date Received: 12-Jan-18 12:52 Column: BEH C18						
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
PFBS	ND	0.443	5.00	10.0		B8A0083	16-Jan-18	0.250 L	19-Jan-18 01:19	1	
PFOA	ND	1.08	5.00	10.0		B8A0083	16-Jan-18	0.250 L	19-Jan-18 01:19	1	
PFOS	ND	1.04	5.00	10.0		B8A0083	16-Jan-18	0.250 L	19-Jan-18 01:19	1	
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
13C2-PFHxA	SURR	91.5	70 - 130			B8A0083	16-Jan-18	0.250 L	19-Jan-18 01:19	1	
13C2-PFDA	SURR	93.5	70 - 130			B8A0083	16-Jan-18	0.250 L	19-Jan-18 01:19	1	

DL - Detection Limit	LOD - Limit of Detection LOQ - Limit of quantitation	LCL-UCL- Lower control limit - upper control limit Results reported to the DL.	When reported, PFHxS, PFOA and PFOS include both linear and branched isomers. Only the linear isomer is reported for all other analytes.
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Sample ID: CH-AT-1RW146-0118					EPA Method 537					
Client Data Name: CH2M Hill Project: MCOLF ATLANTIC Location: Drinking Water Matrix: Drinking Water Date Collected: 11-Jan-18 10:33					Laboratory Data Lab Sample: 1800080-07 Date Received: 12-Jan-18 12:52 Column: BEH C18					
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	1.13	0.456	5.14	10.3	J	B8A0083	16-Jan-18	0.243 L	19-Jan-18 01:32	1
PFOA	10.4	1.11	5.14	10.3		B8A0083	16-Jan-18	0.243 L	19-Jan-18 01:32	1
PFOS	60.0	1.07	5.14	10.3		B8A0083	16-Jan-18	0.243 L	19-Jan-18 01:32	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	88.0	70 - 130			B8A0083	16-Jan-18	0.243 L	19-Jan-18 01:32	1
13C2-PFDA	SURR	86.6	70 - 130			B8A0083	16-Jan-18	0.243 L	19-Jan-18 01:32	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit
Results reported to the DL.

When reported, PFHxS, PFOA and PFOS include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CH-AT-1RW146-0118														EPA Method 537			
Name: CH2M Hill Project: MCOLF ATLANTIC Matrix: Aqueous					Lab Sample: B8A0083-MS1/B8A0083-MSD1 QC Batch: B8A0083 Samp Size: 0.241/0.246 L					Source Lab Sample: 1800080-07 Date Extracted: 16-Jan-18 Column: BEH C18							
Analyte	Sample (ng/L)	MS (ng/L)	MS Spike Amt	MS % Rec	MS Quals	MSD (ng/L)	MSD Spike Amt	MSD % Rec	RPD	MSD Quals	%Rec Limits	RPD Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil	
PFBS	1.13	17.9	18.4	91.2		14.6	17.9	75.4	19.0		70-130	30	18-Jan-18 19:07	1	18-Jan-18 19:19	1	
PFOA	10.4	27.7	20.8	83.3		28.1	20.3	87.1	4.46		70-130	30	18-Jan-18 19:07	1	18-Jan-18 19:19	1	
PFOS	60.0	75.1	19.2	78.5		77.5	18.8	92.7	16.6		70-130	30	18-Jan-18 19:07	1	18-Jan-18 19:19	1	
Labeled Standards		Type		MS % Rec	MS Quals			MSD % Rec		MSD Quals	Limits		MS Analyzed	MS Dil	MSD Analyzed	MSD Dil	
13C2-PFHxA		SURR		89.0				86.9			70-130		18-Jan-18 19:07	1	18-Jan-18 19:19	1	
13C2-PFDA		SURR		84.3				86.1			70-130		18-Jan-18 19:07	1	18-Jan-18 19:19	1	

When reported, PFHxS, PFOA and PFOS include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank.
D	Dilution
E	The associated compound concentration exceeded the calibration range of the instrument.
H	Recovery and/or RPD was outside laboratory acceptance limits.
I	Chemical Interference
J	The amount detected is below the Reporting Limit/LOQ.
M	Estimated Maximum Possible Concentration. (CA Region 2 projects only)
*	See Cover Letter
Conc.	Concentration
NA	Not applicable
ND	Not Detected
TEQ	Toxic Equivalency
U	Not Detected (specific projects only)

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

CERTIFICATIONS

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	17-015-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-18
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2016026
Minnesota Department of Health	1322288
New Hampshire Environmental Accreditation Program	207717
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-008
Pennsylvania Department of Environmental Protection	014
Texas Commission on Environmental Quality	T104704189-17-8
Virginia Department of General Services	9077
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.



CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1800080 Temp: 0.5 °C
Storage ID: WR-2 Storage Secured: Yes ☒ No ☐

Project ID: MCOLF ATLANTIC PO#: 100067106081 Sampler: MARITA CLAY
(name)

TAT (check one): ☐ 21 days ☐ 14 days ☒ 7 days Specify: _____
Standard: _____ Rush (surcharge may apply): _____
Ph# _____ Fax# _____

Invoice to: Name TIFFANY HILL Company CH2M Address 5701 CLEVELAND ST City VIRGINIA BEACH State VA

Relinquished by (printed name and signature) MARITA CLAY Date 01/11/18 Time 1345
Received by (printed name and signature) Marissa Sparks Date 01/12/18 Time 1323

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 * Fax (916) 673-0106
Method of Shipment: FEDEX
Tracking No.: 78736561076
ATTN: MARITA MAIER

Add Analysis(es) Requested

Container(s)

Quantify Type Matrix PFOA/PFOS UCMR3 PFAS List 6 537 List 14 Full List of 26 Other: Please List Below
EPA Method 537 (DW) PFAS (PFOA, PFOS + PFBS) EPA Method 537 (DW only)

Sample ID	Date	Time	Location/Sample Description	Quantify	Type	Matrix	PFOA/PFOS	UCMR3 PFAS List 6	537 List 14	Full List of 26	Other: Please List Below	PFOA/PFOS	UCMR3 PFAS List 6	537 List 14	Comments
CH-AT-2RW58-0118	01/11/18	0928	DRINKING WATER	2	G	DW					X				
CH-AT-2FB58-0118		0928		2	G	DW					X				
CH-AT-2RW58B-0118		0930		2	G	DW					X				
CH-AT-2FB58B-0118		0930		2	G	DW					X				
CH-AT-2RW58C-0118		0935		2	G	DW					X				
CH-AT-2FB58C-0118		0935		2	G	DW					X				
CH-AT-1RW146-0118		1033		2	G	DW					X				
CH-AT-1FB146-0118-MS		1033		2	G	DW					X				MS
CH-AT-1RW146-0118-SD		1033		2	G	DW					X				SD
CH-AT-1FB146-0118		1033		2	G	DW					X				

Special Instructions/Comments: _____

SEND DOCUMENTATION AND RESULTS TO:

Name: SEE P.O.
Company: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____ Fax: _____
Email: _____

Container Types: P = HDPE, PJ = HDPE Jar
O = Other: P

Bottle Preservation Type: T = Thiosulfate,
TZ = Trizma: TZ

Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment,
SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other: DW

Sample Log-in Checklist

Vista Work Order #:

1800080

TAT

7 day

Samples Arrival:	Date/Time 01/12/18 1252	Initials: WMS	Location: WR-2 Shelf/Rack: N/A
Logged In:	Date/Time 01/12/18 1332	Initials: WMS JH	Location: WR-2 Shelf/Rack: F-4
Delivered By:	FedEx	UPS	On Trac
	GSO	DHL	Hand Delivered
	Other		
Preservation:	Ice	Blue Ice	Dry Ice
	None		
Temp °C:	0.6 (uncorrected)	Time: 1321	Thermometer ID: IR-4
Temp °C:	0.5 (corrected)	Probe used: Yes ☐ No ☒	

	YES	NO	NA
Adequate Sample Volume Received?	/		
Holding Time Acceptable?	/		
Shipping Container(s) Intact?	/		
Shipping Custody Seals Intact?	/		
Shipping Documentation Present?	/		
Airbill	Trk # 782-7893 0556 1076	/	
Sample Container Intact?	/		
Sample Custody Seals Intact?			/
Chain of Custody / Sample Documentation Present?	/		
COC Anomaly/Sample Acceptance Form completed?		/	/
If Chlorinated or Drinking Water Samples, Acceptable Preservation?	/		
Preservation Documented:	Na ₂ S ₂ O ₃	Trizma	None
	Yes	No	NA
Shipping Container	Vista	Client	Retain
	Return	Dispose	

Comments:

January 22, 2018

Vista Work Order No. 1800080

Ms. Tiffany Hill
CH2M Hill
1100 NE Circle Blvd. Suite 300
Corvallis, OR 97330

Dear Ms. Hill,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on January 12, 2018. This sample set was analyzed on a rush turn-around time, under your Project Name 'MCOLF ATLANTIC'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,



Martha Maier
Laboratory Director



Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.

Vista Work Order No. 1800080**Case Narrative****Sample Condition on Receipt:**

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Holding Times

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Quality Control

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The surrogate recoveries for all QC and field samples were within the acceptance criteria.

A Laboratory Fortified Sample Matrix (LFSM) and Laboratory Fortified Sample Matrix Duplicate (LFSMD) were performed on sample "CH-AT-1RW146-0118". The analyte recoveries and RPDs were within the method acceptance criteria.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1800080-01	CH-AT-2RW58-0118	11-Jan-18 09:28	12-Jan-18 12:52	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1800080-02	CH-AT-2FB58-0118	11-Jan-18 09:28	12-Jan-18 12:52	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1800080-03	CH-AT-2RW58B-0118	11-Jan-18 09:30	12-Jan-18 12:52	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1800080-04	CH-AT-2FB58B-0118	11-Jan-18 09:30	12-Jan-18 12:52	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1800080-05	CH-AT-2RW58C-0118	11-Jan-18 09:35	12-Jan-18 12:52	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1800080-06	CH-AT-2FB58C-0118	11-Jan-18 09:35	12-Jan-18 12:52	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1800080-07	CH-AT-1RW146-0118	MS/MSD11-Jan-18 10:33	12-Jan-18 12:52	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1800080-08	CH-AT-1FB146-0118	11-Jan-18 10:33	12-Jan-18 12:52	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL

ANALYTICAL RESULTS

Sample ID: LRB					EPA Method 537					
Client Data Name: CH2M Hill Project: MCOLF ATLANTIC					Laboratory Data Lab Sample: B8A0083-BLK1 Column: BEH C18					
Matrix: Aqueous										
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.443	5.00	10.0		B8A0083	16-Jan-18	0.250 L	18-Jan-18 17:52	1
PFOA	ND	1.08	5.00	10.0		B8A0083	16-Jan-18	0.250 L	18-Jan-18 17:52	1
PFOS	ND	1.04	5.00	10.0		B8A0083	16-Jan-18	0.250 L	18-Jan-18 17:52	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	85.0	70 - 130			B8A0083	16-Jan-18	0.250 L	18-Jan-18 17:52	1
13C2-PFDA	SURR	90.0	70 - 130			B8A0083	16-Jan-18	0.250 L	18-Jan-18 17:52	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit
Results reported to the DL.

When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

Sample ID: LFB					EPA Method 537					
Client Data Name: CH2M Hill Project: MCOLF ATLANTIC Matrix: Aqueous					Laboratory Data Lab Sample: B8A0083-BS1 Column: BEH C18					
Analyte	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	15.9	17.7	90.0	70-130		B8A0083	16-Jan-18	0.250 L	18-Jan-18 18:54	1
PFOA	20.7	20.0	103	70-130		B8A0083	16-Jan-18	0.250 L	18-Jan-18 18:54	1
PFOS	16.7	18.5	90.6	70-130		B8A0083	16-Jan-18	0.250 L	18-Jan-18 18:54	1
Labeled Standards	Type		% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR		92.4	70- 130		B8A0083	16-Jan-18	0.250 L	18-Jan-18 18:54	1
13C2-PFDA	SURR		106	70- 130		B8A0083	16-Jan-18	0.250 L	18-Jan-18 18:54	1

Sample ID: CH-AT-2RW58-0118					EPA Method 537					
Client Data Name: CH2M Hill Project: MCOLF ATLANTIC Location: Drinking Water Matrix: Drinking Water Date Collected: 11-Jan-18 09:28					Laboratory Data Lab Sample: 1800080-01 Date Received: 12-Jan-18 12:52 Column: BEH C18					
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.442	4.98	9.97		B8A0083	16-Jan-18	0.251 L	19-Jan-18 00:17	1
PFOA	2.85	1.08	4.98	9.97	J	B8A0083	16-Jan-18	0.251 L	19-Jan-18 00:17	1
PFOS	1.43	1.04	4.98	9.97	J	B8A0083	16-Jan-18	0.251 L	19-Jan-18 00:17	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	81.7	70 - 130			B8A0083	16-Jan-18	0.251 L	19-Jan-18 00:17	1
13C2-PFDA	SURR	97.3	70 - 130			B8A0083	16-Jan-18	0.251 L	19-Jan-18 00:17	1

DL - Detection Limit	LOD - Limit of Detection LOQ - Limit of quantitation	LCL-UCL- Lower control limit - upper control limit Results reported to the DL.	When reported, PFHxS, PFOA and PFOS include both linear and branched isomers. Only the linear isomer is reported for all other analytes.
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Sample ID: CH-AT-2FB58-0118					EPA Method 537					
Client Data Name: CH2M Hill Project: MCOLF ATLANTIC Location: Drinking Water Matrix: Drinking Water Date Collected: 11-Jan-18 09:28					Laboratory Data Lab Sample: 1800080-02 Date Received: 12-Jan-18 12:52 Column: BEH C18					
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.443	5.00	9.99		B8A0083	16-Jan-18	0.250 L	19-Jan-18 00:30	1
PFOA	ND	1.08	5.00	9.99		B8A0083	16-Jan-18	0.250 L	19-Jan-18 00:30	1
PFOS	ND	1.04	5.00	9.99		B8A0083	16-Jan-18	0.250 L	19-Jan-18 00:30	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	85.1	70 - 130			B8A0083	16-Jan-18	0.250 L	19-Jan-18 00:30	1
13C2-PFDA	SURR	89.5	70 - 130			B8A0083	16-Jan-18	0.250 L	19-Jan-18 00:30	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit
Results reported to the DL.

When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

Sample ID: CH-AT-2RW58B-0118					EPA Method 537					
Client Data Name: CH2M Hill Project: MCOLF ATLANTIC Location: Drinking Water Matrix: Drinking Water Date Collected: 11-Jan-18 09:30					Laboratory Data Lab Sample: 1800080-03 Date Received: 12-Jan-18 12:52 Column: BEH C18					
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.449	5.06	10.1		B8A0083	16-Jan-18	0.247 L	19-Jan-18 00:42	1
PFOA	ND	1.10	5.06	10.1		B8A0083	16-Jan-18	0.247 L	19-Jan-18 00:42	1
PFOS	ND	1.05	5.06	10.1		B8A0083	16-Jan-18	0.247 L	19-Jan-18 00:42	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	77.4	70 - 130			B8A0083	16-Jan-18	0.247 L	19-Jan-18 00:42	1
13C2-PFDA	SURR	80.8	70 - 130			B8A0083	16-Jan-18	0.247 L	19-Jan-18 00:42	1

DL - Detection Limit	LOD - Limit of Detection LOQ - Limit of quantitation	LCL-UCL- Lower control limit - upper control limit Results reported to the DL.	When reported, PFHxS, PFOA and PFOS include both linear and branched isomers. Only the linear isomer is reported for all other analytes.
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Sample ID: CH-AT-2FB58B-0118					EPA Method 537					
Client Data Name: CH2M Hill Project: MCOLF ATLANTIC Location: Drinking Water Matrix: Drinking Water Date Collected: 11-Jan-18 09:30					Laboratory Data Lab Sample: 1800080-04 Date Received: 12-Jan-18 12:52 Column: BEH C18					
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.440	4.96	9.94		B8A0083	16-Jan-18	0.252 L	19-Jan-18 00:54	1
PFOA	ND	1.07	4.96	9.94		B8A0083	16-Jan-18	0.252 L	19-Jan-18 00:54	1
PFOS	ND	1.03	4.96	9.94		B8A0083	16-Jan-18	0.252 L	19-Jan-18 00:54	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	85.9	70 - 130			B8A0083	16-Jan-18	0.252 L	19-Jan-18 00:54	1
13C2-PFDA	SURR	90.8	70 - 130			B8A0083	16-Jan-18	0.252 L	19-Jan-18 00:54	1

DL - Detection Limit	LOD - Limit of Detection LOQ - Limit of quantitation	LCL-UCL- Lower control limit - upper control limit Results reported to the DL.	When reported, PFHxS, PFOA and PFOS include both linear and branched isomers. Only the linear isomer is reported for all other analytes.
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Sample ID: CH-AT-2RW58C-0118					EPA Method 537					
Client Data Name: CH2M Hill Project: MCOLF ATLANTIC Location: Drinking Water Matrix: Drinking Water Date Collected: 11-Jan-18 09:35					Laboratory Data Lab Sample: 1800080-05 Date Received: 12-Jan-18 12:52 Column: BEH C18					
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.434	4.90	9.79		B8A0083	16-Jan-18	0.255 L	19-Jan-18 01:07	1
PFOA	ND	1.06	4.90	9.79		B8A0083	16-Jan-18	0.255 L	19-Jan-18 01:07	1
PFOS	ND	1.02	4.90	9.79		B8A0083	16-Jan-18	0.255 L	19-Jan-18 01:07	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	94.8	70 - 130			B8A0083	16-Jan-18	0.255 L	19-Jan-18 01:07	1
13C2-PFDA	SURR	94.5	70 - 130			B8A0083	16-Jan-18	0.255 L	19-Jan-18 01:07	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit
Results reported to the DL.

When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

When reported, PFHxS, PFOA and PFOS include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: CH-AT-1RW146-0118					EPA Method 537					
Client Data Name: CH2M Hill Project: MCOLF ATLANTIC Location: Drinking Water Matrix: Drinking Water Date Collected: 11-Jan-18 10:33					Laboratory Data Lab Sample: 1800080-07 Date Received: 12-Jan-18 12:52 Column: BEH C18					
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	1.13	0.456	5.14	10.3	J	B8A0083	16-Jan-18	0.243 L	19-Jan-18 01:32	1
PFOA	10.4	1.11	5.14	10.3		B8A0083	16-Jan-18	0.243 L	19-Jan-18 01:32	1
PFOS	60.0	1.07	5.14	10.3		B8A0083	16-Jan-18	0.243 L	19-Jan-18 01:32	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	88.0	70 - 130			B8A0083	16-Jan-18	0.243 L	19-Jan-18 01:32	1
13C2-PFDA	SURR	86.6	70 - 130			B8A0083	16-Jan-18	0.243 L	19-Jan-18 01:32	1

DL - Detection Limit	LOD - Limit of Detection LOQ - Limit of quantitation	LCL-UCL- Lower control limit - upper control limit Results reported to the DL.	When reported, PFHxS, PFOA and PFOS include both linear and branched isomers. Only the linear isomer is reported for all other analytes.
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Sample ID: CH-AT-1RW146-0118														EPA Method 537			
Name: CH2M Hill Project: MCOLF ATLANTIC Matrix: Aqueous					Lab Sample: B8A0083-MS1/B8A0083-MSD1 QC Batch: B8A0083 Samp Size: 0.241/0.246 L					Source Lab Sample: 1800080-07 Date Extracted: 16-Jan-18 Column: BEH C18							
Analyte	Sample (ng/L)	MS (ng/L)	MS Spike Amt	MS % Rec	MS Quals	MSD (ng/L)	MSD Spike Amt	MSD % Rec	RPD	MSD Quals	%Rec Limits	RPD Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil	
PFBS	1.13	17.9	18.4	91.2		14.6	17.9	75.4	19.0		70-130	30	18-Jan-18 19:07	1	18-Jan-18 19:19	1	
PFOA	10.4	27.7	20.8	83.3		28.1	20.3	87.1	4.46		70-130	30	18-Jan-18 19:07	1	18-Jan-18 19:19	1	
PFOS	60.0	75.1	19.2	78.5		77.5	18.8	92.7	16.6		70-130	30	18-Jan-18 19:07	1	18-Jan-18 19:19	1	
Labeled Standards		Type		MS % Rec	MS Quals			MSD % Rec		MSD Quals	Limits		MS Analyzed	MS Dil	MSD Analyzed	MSD Dil	
13C2-PFHxA		SURR		89.0				86.9			70-130		18-Jan-18 19:07	1	18-Jan-18 19:19	1	
13C2-PFDA		SURR		84.3				86.1			70-130		18-Jan-18 19:07	1	18-Jan-18 19:19	1	

Sample ID: CH-AT-1FB146-0118					EPA Method 537					
Client Data Name: CH2M Hill Project: MCOLF ATLANTIC Location: Drinking Water Matrix: Drinking Water Date Collected: 11-Jan-18 10:33					Laboratory Data Lab Sample: 1800080-08 Date Received: 12-Jan-18 12:52 Column: BEH C18					
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.452	5.10	10.2		B8A0083	16-Jan-18	0.245 L	19-Jan-18 01:44	1
PFOA	ND	1.10	5.10	10.2		B8A0083	16-Jan-18	0.245 L	19-Jan-18 01:44	1
PFOS	ND	1.06	5.10	10.2		B8A0083	16-Jan-18	0.245 L	19-Jan-18 01:44	1
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	76.8	70 - 130			B8A0083	16-Jan-18	0.245 L	19-Jan-18 01:44	1
13C2-PFDA	SURR	85.1	70 - 130			B8A0083	16-Jan-18	0.245 L	19-Jan-18 01:44	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit
Results reported to the DL.

When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank.
D	Dilution
E	The associated compound concentration exceeded the calibration range of the instrument.
H	Recovery and/or RPD was outside laboratory acceptance limits.
I	Chemical Interference
J	The amount detected is below the Reporting Limit/LOQ.
M	Estimated Maximum Possible Concentration. (CA Region 2 projects only)
*	See Cover Letter
Conc.	Concentration
NA	Not applicable
ND	Not Detected
TEQ	Toxic Equivalency
U	Not Detected (specific projects only)

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

CERTIFICATIONS

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	17-015-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-18
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2016026
Minnesota Department of Health	1322288
New Hampshire Environmental Accreditation Program	207717
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-008
Pennsylvania Department of Environmental Protection	014
Texas Commission on Environmental Quality	T104704189-17-8
Virginia Department of General Services	9077
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.



CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1800080 Temp: 0.5 °C
Storage ID: WR-2 Storage Secured: Yes ☒ No ☐

Project ID: MCOLF ATLANTIC PO#: 100067106081 Sampler: MARITA CLAY
(name)

TAT Standard: ☐ 21 days
(check one): Rush (surcharge may apply) ☐ 14 days ☒ 7 days Specify: _____
Ph# _____ Fax# _____

Invoice to: Name TIFFANY HILL Company CH2M Address 5701 CLEVELAND ST City VIRGINIA BEACH State VA

Relinquished by (printed name and signature) MARITA CLAY Date 01/11/18 Time 1345
Received by (printed name and signature) Marissa Sparks Date 01/12/18 Time 1323

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 * Fax (916) 673-0106
Method of Shipment: FEDEX
Tracking No.: 78736561076
ATTN: MARITA MAIER

Add Analysis(es) Requested

Container(s)

Quantity Type Matrix PFOA/PFOS UCMR3 PFAS List 6 S37 List 14 Full List of 26 Other: Please List Below PFAS (PFOA, PFOS + PFBS) PFOA/PFOS UCMR3 PFAS List 6 PFAS List 14 EPA Method 537 (DW) EPA Method 537 (DW only)

Sample ID	Date	Time	Location/Sample Description	Quantity	Type	Matrix	PFOA/PFOS	UCMR3 PFAS List 6	S37 List 14	Full List of 26	Other: Please List Below	PFAS (PFOA, PFOS + PFBS)	PFOA/PFOS	UCMR3 PFAS List 6	PFAS List 14	EPA Method 537 (DW)	EPA Method 537 (DW only)	Comments
CH-AT-2RW58-0118	01/11/18	0928	DRINKING WATER	2	G	DW					X							
CH-AT-2FB58-0118		0928		2	G	DW					X							
CH-AT-2RW58B-0118		0930		2	G	DW					X							
CH-AT-2FB58B-0118		0930		2	G	DW					X							
CH-AT-2RW58C-0118		0935		2	G	DW					X							
CH-AT-2FB58C-0118		0935		2	G	DW					X							
CH-AT-1RW146-0118		1033		2	G	DW					X							
CH-AT-1FB146-0118-MS		1033		2	G	DW					X							MS
CH-AT-1RW146-0118-SD		1033		2	G	DW					X							SD
CH-AT-1FB146-0118		1033		2	G	DW					X							

Special Instructions/Comments: _____

SEND
DOCUMENTATION
AND RESULTS TO:

Name: SEE P.O.
Company: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____ Fax: _____
Email: _____

Container Types: P= HDPE, PJ= HDPE Jar
O = Other: P

Bottle Preservation Type: T = Thiosulfate,
TZ = Trizma: TZ

Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment,
SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other: DW

Sample Log-in Checklist

Vista Work Order #: 1800080 TAT 7 day

Samples Arrival:	Date/Time <u>01/12/18</u> <u>1252</u>	Initials: <u>WMS</u>	Location: <u>WR-2</u> Shelf/Rack: <u>N/A</u>
Logged In:	Date/Time <u>01/12/18</u> <u>1332</u>	Initials: <u>WMS</u> <u>AK</u>	Location: <u>WR-2</u> Shelf/Rack: <u>F-4</u>
Delivered By:	<u>FedEx</u> UPS On Trac GSO DHL Hand Delivered Other		
Preservation:	<u>Ice</u> Blue Ice Dry Ice None		
Temp °C: <u>0.6</u> (uncorrected)	Time: <u>1321</u>	Thermometer ID: IR-4	
Temp °C: <u>0.5</u> (corrected)	Probe used: Yes ☐ No ☒		

	YES	NO	NA
Adequate Sample Volume Received?	/		
Holding Time Acceptable?	/		
Shipping Container(s) Intact?	/		
Shipping Custody Seals Intact?	/		
Shipping Documentation Present?	/		
Airbill	Trk # <u>782 7893 0556 1076</u>	/	
Sample Container Intact?	/		
Sample Custody Seals Intact?			/
Chain of Custody / Sample Documentation Present?	/		
COC Anomaly/Sample Acceptance Form completed?		/	/
If Chlorinated or Drinking Water Samples, Acceptable Preservation?	/		
Preservation Documented:	Na ₂ S ₂ O ₃ <u>Trizma</u> None	<u>Yes</u>	No NA
Shipping Container	Vista <u>Client</u> Retain	<u>Return</u>	Dispose

Comments:

EXTRACTION INFORMATION

Process Sheet
Workorder: 1800080



Prep Expiration: 2018-Jan-25
Client: CH2M Hill

Workorder Due: 22-Jan-18 00:00

TAT: 10

Method: 537 PFAS DW DoD Unmodified
Matrix: Aqueous

Prep Batch: B8A0083

Prep Data Entered: 01/17/18 MA
Date and Initials

Initial Sequence: S8A0063

Version: PFOA, PFOS, PFBS
DoD: DoD QSM 5.1

LabSampleID	A/B	Prep Rec	Spike Rec	ClientSampleID	Comments	Location	Container
1800080-01	A	☒	☒	CH-AT-2RW58-0118		WR-2 F-4	HDPE Bottle, 250 mL
1800080-02		☒	☒	CH-AT-2FB58-0118		WR-2 F-4	HDPE Bottle, 250 mL
1800080-03		☒	☒	CH-AT-2RW58B-0118		WR-2 F-4	HDPE Bottle, 250 mL
1800080-04		☒	☒	CH-AT-2FB58B-0118		WR-2 F-4	HDPE Bottle, 250 mL
1800080-05		☒	☒	CH-AT-2RW58C-0118		WR-2 F-4	HDPE Bottle, 250 mL
1800080-06		☒	☒	CH-AT-2FB58C-0118		WR-2 F-4	HDPE Bottle, 250 mL
1800080-07	A, B, C	☒	☒	CH-AT-1RW146-0118	MS/MSD	WR-2 F-4	HDPE Bottle, 250 mL
1800080-08	A	☒	☒	CH-AT-1FB146-0118		WR-2 F-4	HDPE Bottle, 250 mL

Pre-Prep Check Out: KC 1/16/18
Pre-Prep Check In: NA

Prep Check Out: NA
Prep Check In: NA

Prep Reconciled Initials/Date: KC 1/16/18
Spike Reconciled Initials/Date: 7R 1-16-18
VialBoxID: No.

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537 PFAS DW DoD Unmodified

B8A0083

Chemist: KC

Prep Date/Time: 16-Jan-18 08:41

Prepared using: LCMS - SPE Extraction-LCMS

		Balance ID: <u>HBMS-8</u>					
Cen	VISTA Sample ID	Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	SS/NS CHEM/WIT DATE	SPE	IS CHEM/WIT DATE
☐	B8A0083-BLK1 (A)	NA	NA	(0.250) ✓	KC 7R 1/16/18	KC	7R 1/16/18
☐	B8A0083-BS1 J	J	J	(0.250) ✓	T	T	T
☒	B8A0083-MS1 1800080-07	268.36	27.81	0.24055 ✓			
☒	B8A0083-MSD1 1800080-07	274.13	27.83	0.24630 ✓			
☒	1800080-01	278.64	27.88	0.25076 ✓			
☐	1800080-02	277.18	27.01	0.25017 ✓			
☒	1800080-03	274.20	27.63	0.24657 ✓			
☐	1800080-04	278.53	26.96	0.25157 ✓			
☒	1800080-05	283.15	27.80	0.25535 ✓			
☐	1800080-06	277.37	27.58	0.24979 ✓			
☐	1800080-07	270.48	27.72	0.24276 ✓			
☐	1800080-08	272.44	27.52	0.24492 ✓			

SS/IS: <u>17L1416, 20mL (V2)</u> NS: <u>17L2815, 20mL</u> IS/RS: <u>17L4417, 20mL (V2)</u>	SPE Chem: <u>Shata-X-33mm 500mg 6mL</u> Lot#: <u>517-002481</u> Ele SOLV: <u>MeOH</u> Lot#: <u>DT189</u> Final Volume(s): <u>1mL</u>	Notes: (A) 1.25g trizma added KC 1/16/18
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Comments: Assume 1 g = 1 mL

Cen = Centrifuged
Work Order 1800080

Batch: B8A0083

Matrix: Aqueous

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
1800080-01	0.25076 ✓	NA	NA	1000	16-Jan-18 08:41	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800080-02	0.25017 ✓			1000	16-Jan-18 08:41	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800080-03	0.24657 ✓			1000	16-Jan-18 08:41	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800080-04	0.25157 ✓			1000	16-Jan-18 08:41	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800080-05	0.25535 ✓			1000	16-Jan-18 08:41	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800080-06	0.24979 ✓			1000	16-Jan-18 08:41	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800080-07	0.24276 ✓			1000	16-Jan-18 08:41	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800080-08	0.24492 ✓			1000	16-Jan-18 08:41	KC			Drinking Water	537 PFAS DW DoD Unmoc
B8A0083-BLK1	0.25 ✓			1000	16-Jan-18 08:41	KC				QC
B8A0083-BS1	0.25 ✓			1000	16-Jan-18 08:41	KC	17L2815 ✓	20 ✓		QC
B8A0083-MS1	0.24055 ✓			1000	16-Jan-18 08:41	KC	17L2815 ✓	20 ✓		QC
B8A0083-MSD1	0.2463 ✓			1000	16-Jan-18 08:41	KC	17L2815 ✓	20 ✓		QC

✓ MA 01/17/18

SAMPLE DATA –EPA METHOD 537

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__12.qld

Last Altered: Saturday, January 20, 2018 14:46:41 Pacific Standard Time

Printed: Saturday, January 20, 2018 15:42:27 Pacific Standard Time

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 19 Jan 2018 15:02:03

Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180118G2_12, Date: 18-Jan-2018, Time: 17:52:33, ID: B8A0083-BLK1 LRB 0.25, Description: LRB

	# Name	Trace	Area	IS Area	RRF	wt/vol	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	1.98e0	9.80e3		0.2500	3.02	3.01			
2	5 PFOA	413 > 368.7	6.27e1	9.26e3		0.2500	4.31	4.31	0.0677	0.347	
3	7 PFOS	499 >79.9		9.80e3		0.2500	4.72				
4	15 13C2-PFHxA	315 > 269.8	4.07e3	9.26e3	0.517	0.2500	3.46	3.37	4.40	34.0	85.0
5	16 13C2-PFDA	515.1 > 469.9	4.52e3	9.26e3	0.543	0.2500	4.92	4.96	4.89	36.0	90.0
6	18 13C2-PFOA	414.9 > 369.7	9.26e3	9.26e3	1.000	0.2500	4.31	4.31	10.0	40.0	100.0
7	19 13C4-PFOS	503.0 > 79.9	9.80e3	9.80e3		0.2500	4.81	4.72			

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__12.qld

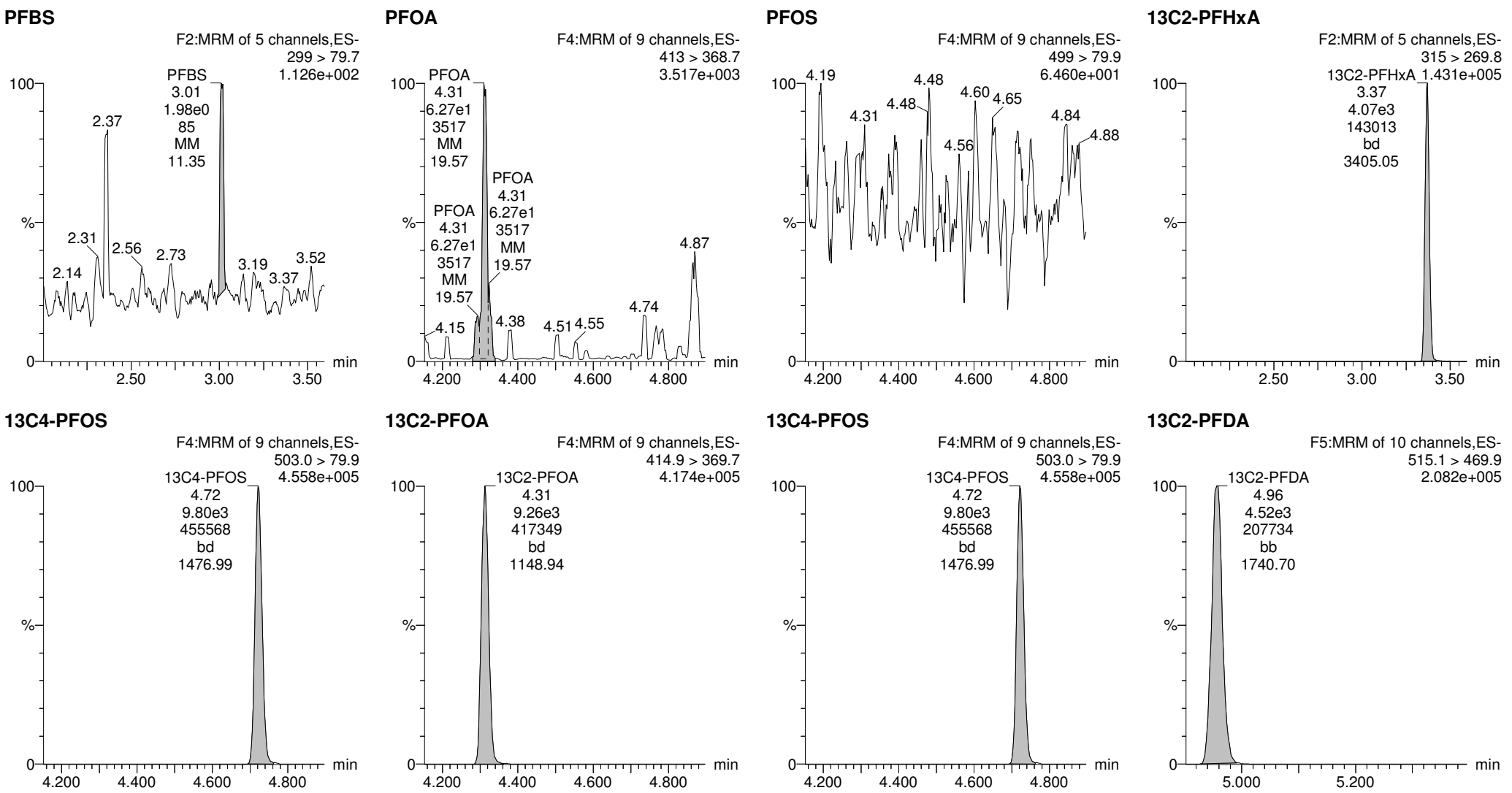
Last Altered: Saturday, January 20, 2018 14:46:41 Pacific Standard Time

Printed: Saturday, January 20, 2018 15:42:27 Pacific Standard Time

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 19 Jan 2018 15:02:03

Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180118G2_12, Date: 18-Jan-2018, Time: 17:52:33, ID: B8A0083-BLK1 LRB 0.25, Description: LRB



Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__17.qld

Last Altered: Saturday, January 20, 2018 14:55:44 Pacific Standard Time

Printed: Saturday, January 20, 2018 15:00:44 Pacific Standard Time

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 19 Jan 2018 15:02:03

Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180118G2_17, Date: 18-Jan-2018, Time: 18:54:34, ID: B8A0083-BS1 LFB 0.25, Description: LFB

	# Name	Trace	Area	IS Area	RRF	wt/vol	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	1.04e3	9.10e3		0.2500	3.02	3.01	3.29	15.9	90.0
2	5 PFOA	413 > 368.7	3.42e3	8.48e3		0.2500	4.31	4.31	4.04	20.7	103.4
3	7 PFOS	499 >79.9	1.51e3	9.10e3		0.2500	4.72	4.72	4.76	16.7	90.5
4	15 13C2-PFHxA	315 > 269.8	4.05e3	8.48e3	0.517	0.2500	3.46	3.37	4.78	36.9	92.4
5	16 13C2-PFDA	515.1 > 469.9	4.85e3	8.48e3	0.543	0.2500	4.92	4.96	5.72	42.2	105.5
6	18 13C2-PFOA	414.9 > 369.7	8.48e3	8.48e3	1.000	0.2500	4.31	4.31	10.0	40.0	100.0
7	19 13C4-PFOS	503.0 > 79.9	9.10e3	9.10e3	1.000	0.2500	4.81	4.72	28.7	115	100.0

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__17.qld

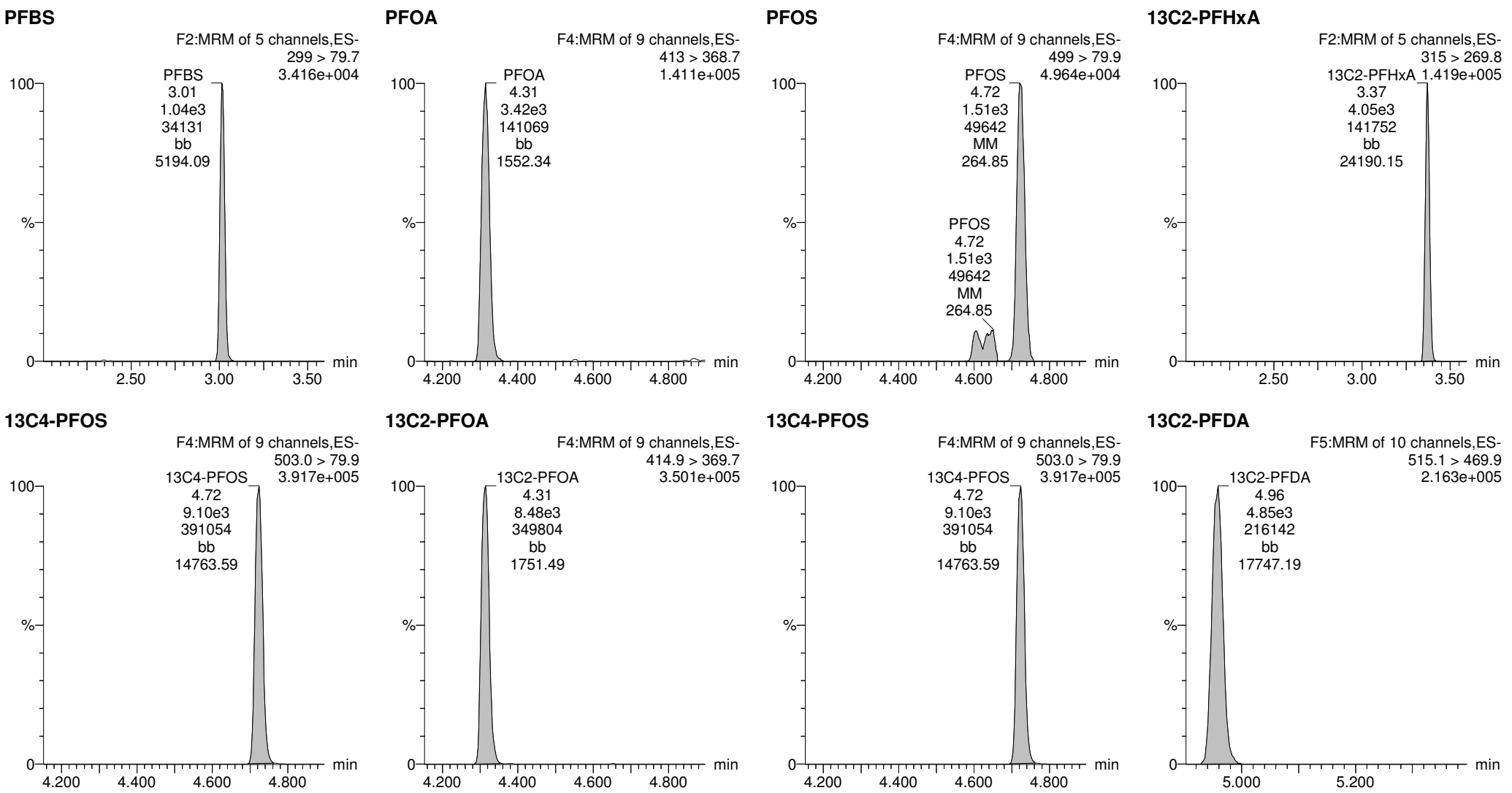
Last Altered: Saturday, January 20, 2018 14:55:44 Pacific Standard Time

Printed: Saturday, January 20, 2018 15:00:44 Pacific Standard Time

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 19 Jan 2018 15:02:03

Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180118G2_17, Date: 18-Jan-2018, Time: 18:54:34, ID: B8A0083-BS1 LFB 0.25, Description: LFB



Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__43.qld

Last Altered: Monday, January 22, 2018 07:53:09 Pacific Standard Time

Printed: Monday, January 22, 2018 07:53:49 Pacific Standard Time

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 19 Jan 2018 15:02:03

Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180118G2_43, Date: 19-Jan-2018, Time: 00:17:41, ID: 1800080-01 CH-AT-2RW58-0118 0.25076, Description: CH-AT-2RW58-0118

	# Name	Trace	Area	IS Area	RRF	wt/vol	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7		1.08e4		0.2508	3.03				
2	5 PFOA	413 > 368.7	5.32e2	9.52e3		0.2508	4.32	4.32	0.559	2.85	
3	7 PFOS	499 >79.9	1.54e2	1.08e4		0.2508	4.73	4.73	0.408	1.43	
4	15 13C2-PFHxA	315 > 269.8	4.02e3	9.52e3	0.517	0.2508	3.46	3.38	4.23	32.6	81.7
5	16 13C2-PFDA	515.1 > 469.9	5.02e3	9.52e3	0.543	0.2508	4.92	4.96	5.28	38.8	97.3
6	18 13C2-PFOA	414.9 > 369.7	9.52e3	9.52e3	1.000	0.2508	4.31	4.32	10.0	39.9	100.0
7	19 13C4-PFOS	503.0 > 79.9	1.08e4	1.08e4	1.000	0.2508	4.81	4.73	28.7	114	100.0

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__43.qld

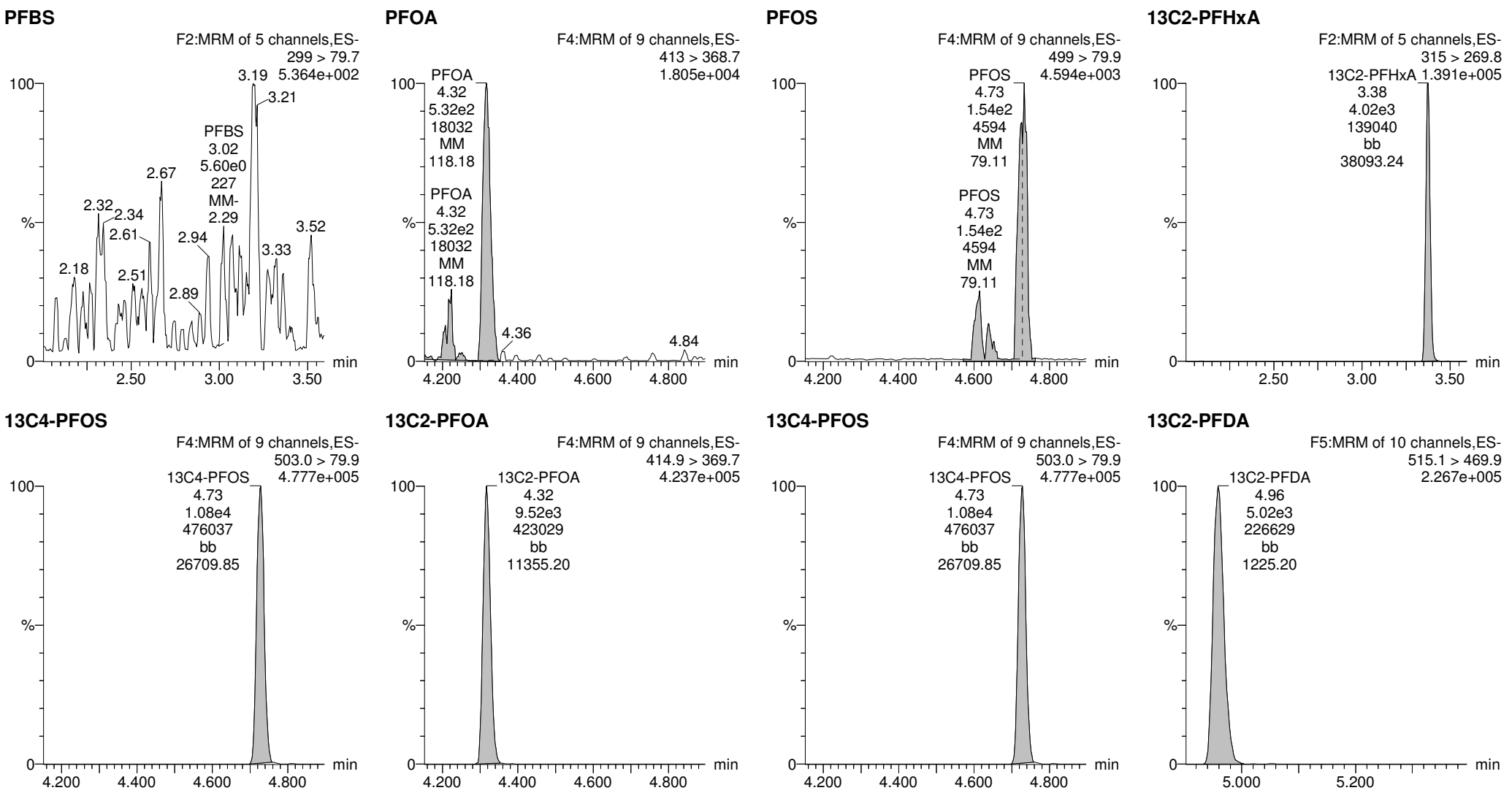
Last Altered: Monday, January 22, 2018 07:53:09 Pacific Standard Time

Printed: Monday, January 22, 2018 07:53:49 Pacific Standard Time

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 19 Jan 2018 15:02:03

Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180118G2_43, Date: 19-Jan-2018, Time: 00:17:41, ID: 1800080-01 CH-AT-2RW58-0118 0.25076, Description: CH-AT-2RW58-0118



Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__44.qld

Last Altered: Saturday, January 20, 2018 15:50:29 Pacific Standard Time

Printed: Saturday, January 20, 2018 15:50:54 Pacific Standard Time

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 19 Jan 2018 15:02:03

Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180118G2_44, Date: 19-Jan-2018, Time: 00:30:06, ID: 1800080-02 CH-AT-2FB58-0118 0.25017, Description: CH-AT-2FB58-0118

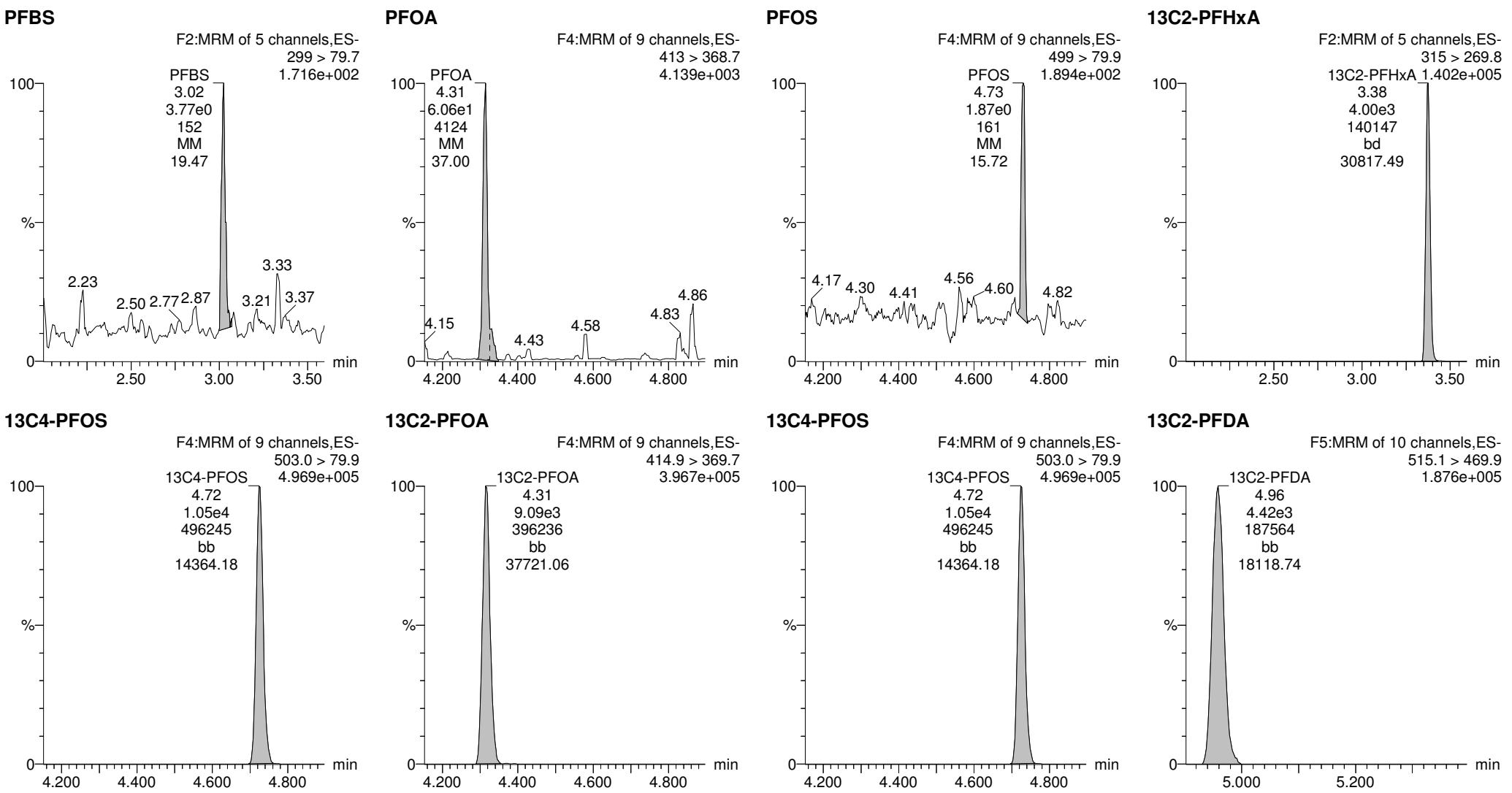
	# Name	Trace	Area	IS Area	RRF	wt/vol	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	3.77e0	1.05e4		0.2502	3.02	3.02	0.0103	0.0499	
2	5 PFOA	413 > 368.7	6.06e1	9.09e3		0.2502	4.31	4.31	0.0667	0.341	
3	7 PFOS	499 >79.9	1.87e0	1.05e4		0.2502	4.72	4.73	0.00513	0.0180	
4	15 13C2-PFHxA	315 > 269.8	4.00e3	9.09e3	0.517	0.2502	3.46	3.38	4.40	34.0	85.1
5	16 13C2-PFDA	515.1 > 469.9	4.42e3	9.09e3	0.543	0.2502	4.92	4.96	4.86	35.8	89.5
6	18 13C2-PFOA	414.9 > 369.7	9.09e3	9.09e3	1.000	0.2502	4.31	4.31	10.0	40.0	100.0
7	19 13C4-PFOS	503.0 > 79.9	1.05e4	1.05e4	1.000	0.2502	4.81	4.72	28.7	115	100.0

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__44.qld

Last Altered: Saturday, January 20, 2018 15:50:29 Pacific Standard Time
Printed: Saturday, January 20, 2018 15:50:54 Pacific Standard Time

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 19 Jan 2018 15:02:03
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180118G2_44, Date: 19-Jan-2018, Time: 00:30:06, ID: 1800080-02 CH-AT-2FB58-0118 0.25017, Description: CH-AT-2FB58-0118



Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__45.qld

Last Altered: Monday, January 22, 2018 10:33:34 Pacific Standard Time

Printed: Monday, January 22, 2018 10:34:23 Pacific Standard Time

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 19 Jan 2018 15:02:03

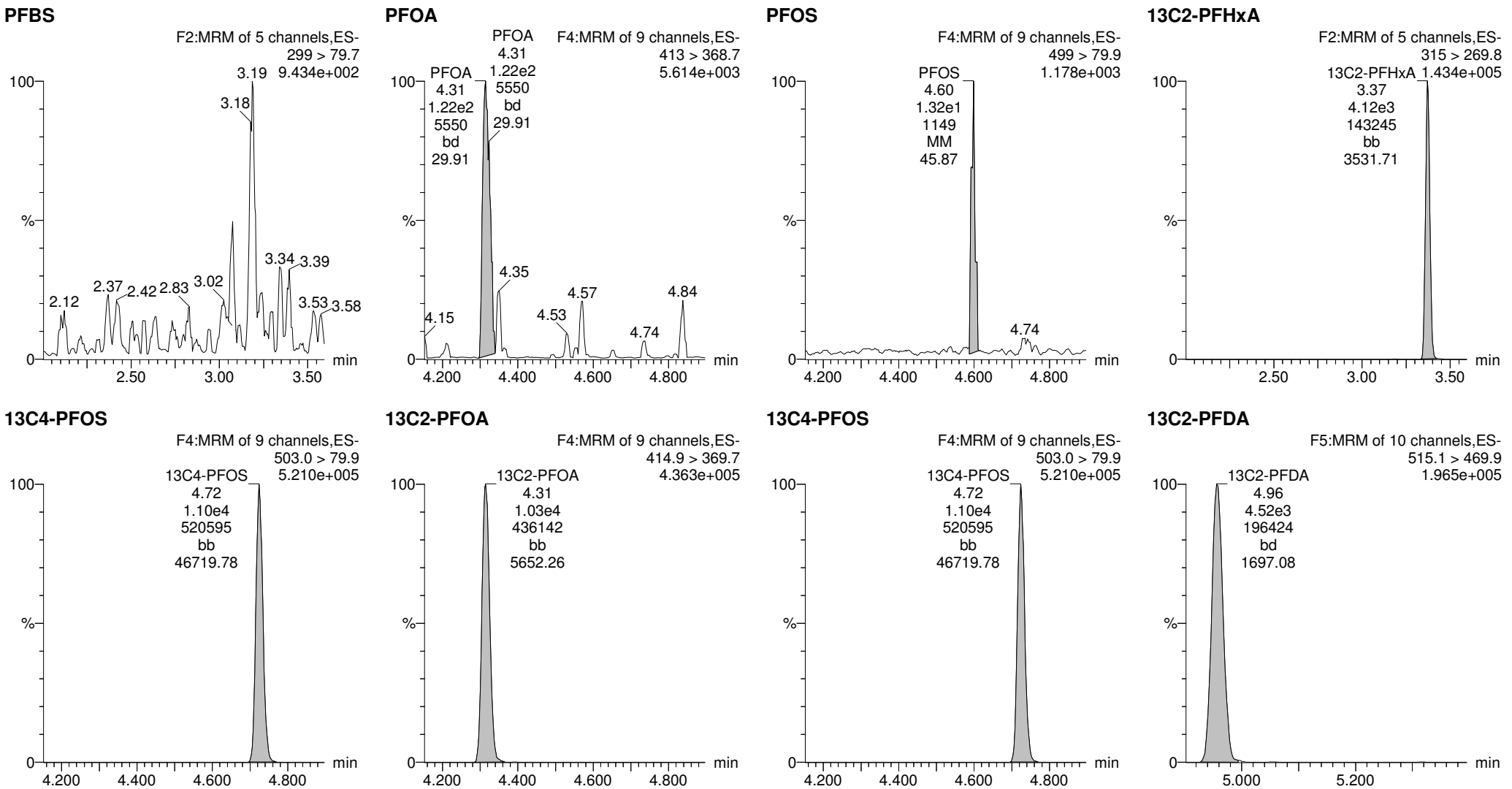
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180118G2_45, **Date:** 19-Jan-2018, **Time:** 00:42:30, **ID:** 1800080-03 CH-AT-2RW58B-0118 0.24657, **Description:** CH-AT-2RW58B-0118

	# Name	Trace	Area	IS Area	RRF	wt/vol	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7		1.10e4		0.2466	3.02				
2	5 PFOA	413 > 368.7	1.22e2	1.03e4		0.2466	4.31	4.31	0.118	0.615	
3	7 PFOS	499 >79.9	1.32e1	1.10e4		0.2466	4.72	4.60	0.0345	0.123	
4	15 13C2-PFHxA	315 > 269.8	4.12e3	1.03e4	0.517	0.2466	3.46	3.37	4.00	31.4	77.4
5	16 13C2-PFDA	515.1 > 469.9	4.52e3	1.03e4	0.543	0.2466	4.92	4.96	4.39	32.8	80.8
6	18 13C2-PFOA	414.9 > 369.7	1.03e4	1.03e4	1.000	0.2466	4.31	4.31	10.0	40.6	100.0
7	19 13C4-PFOS	503.0 > 79.9	1.10e4	1.10e4	1.000	0.2466	4.81	4.72	28.7	116	100.0

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 19 Jan 2018 15:02:03
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180118G2_45, Date: 19-Jan-2018, Time: 00:42:30, ID: 1800080-03 CH-AT-2RW58B-0118 0.24657, Description: CH-AT-2RW58B-0118



Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__46.qld

Last Altered: Saturday, January 20, 2018 15:54:21 Pacific Standard Time

Printed: Saturday, January 20, 2018 15:55:55 Pacific Standard Time

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 19 Jan 2018 15:02:03

Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180118G2_46, Date: 19-Jan-2018, Time: 00:54:55, ID: 1800080-04 CH-AT-2FB58B-0118 0.25157, Description: CH-AT-2FB58B-0118

	# Name	Trace	Area	IS Area	RRF	wt/vol	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7		1.01e4		0.2516	3.02				
2	5 PFOA	413 > 368.7	5.65e1	9.06e3		0.2516	4.31	4.31	0.0624	0.317	
3	7 PFOS	499 >79.9		1.01e4		0.2516	4.72				
4	15 13C2-PFHxA	315 > 269.8	4.03e3	9.06e3	0.517	0.2516	3.46	3.37	4.44	34.1	85.9
5	16 13C2-PFDA	515.1 > 469.9	4.47e3	9.06e3	0.543	0.2516	4.92	4.96	4.93	36.1	90.8
6	18 13C2-PFOA	414.9 > 369.7	9.06e3	9.06e3	1.000	0.2516	4.31	4.31	10.0	39.8	100.0
7	19 13C4-PFOS	503.0 > 79.9	1.01e4	1.01e4	1.000	0.2516	4.81	4.72	28.7	114	100.0

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__46.qld

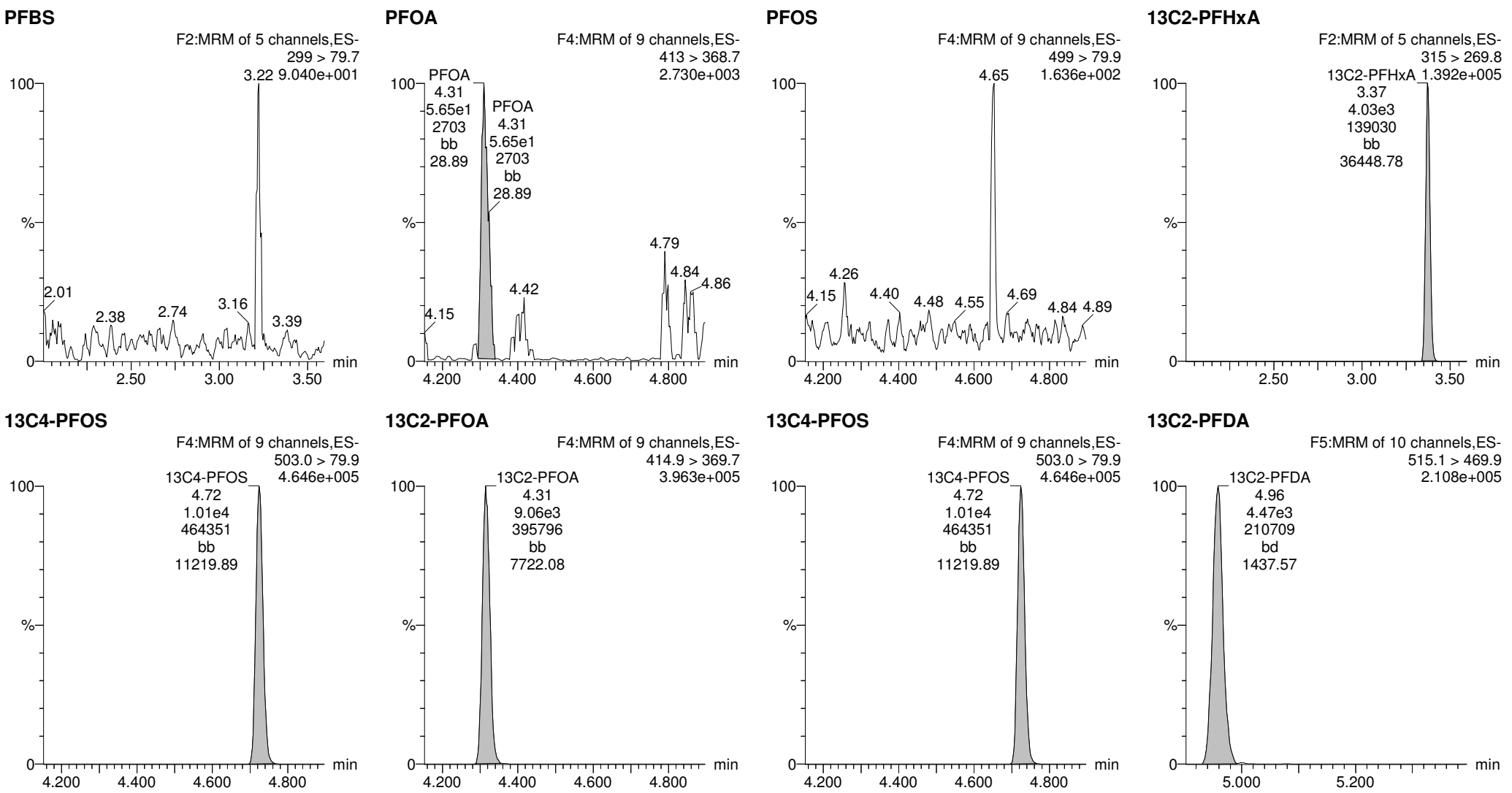
Last Altered: Saturday, January 20, 2018 15:54:21 Pacific Standard Time

Printed: Saturday, January 20, 2018 15:55:55 Pacific Standard Time

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 19 Jan 2018 15:02:03

Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180118G2_46, Date: 19-Jan-2018, Time: 00:54:55, ID: 1800080-04 CH-AT-2FB58B-0118 0.25157, Description: CH-AT-2FB58B-0118



Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__47.qld

Last Altered: Saturday, January 20, 2018 15:56:56 Pacific Standard Time

Printed: Saturday, January 20, 2018 15:57:28 Pacific Standard Time

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 19 Jan 2018 15:02:03

Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180118G2_47, Date: 19-Jan-2018, Time: 01:07:19, ID: 1800080-05 CH-AT-2RW58C-0118 0.25535, Description: CH-AT-2RW58C-0118

	# Name	Trace	Area	IS Area	RRF	wt/vol	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7		1.09e4		0.2554	3.02				
2	5 PFOA	413 > 368.7	3.54e1	8.75e3		0.2554	4.31	4.32	0.0405	0.203	
3	7 PFOS	499 >79.9		1.09e4		0.2554	4.72				
4	15 13C2-PFHxA	315 > 269.8	4.29e3	8.75e3	0.517	0.2554	3.46	3.37	4.90	37.1	94.8
5	16 13C2-PFDA	515.1 > 469.9	4.49e3	8.75e3	0.543	0.2554	4.92	4.96	5.13	37.0	94.5
6	18 13C2-PFOA	414.9 > 369.7	8.75e3	8.75e3	1.000	0.2554	4.31	4.31	10.0	39.2	100.0
7	19 13C4-PFOS	503.0 > 79.9	1.09e4	1.09e4	1.000	0.2554	4.81	4.72	28.7	112	100.0

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__47.qld

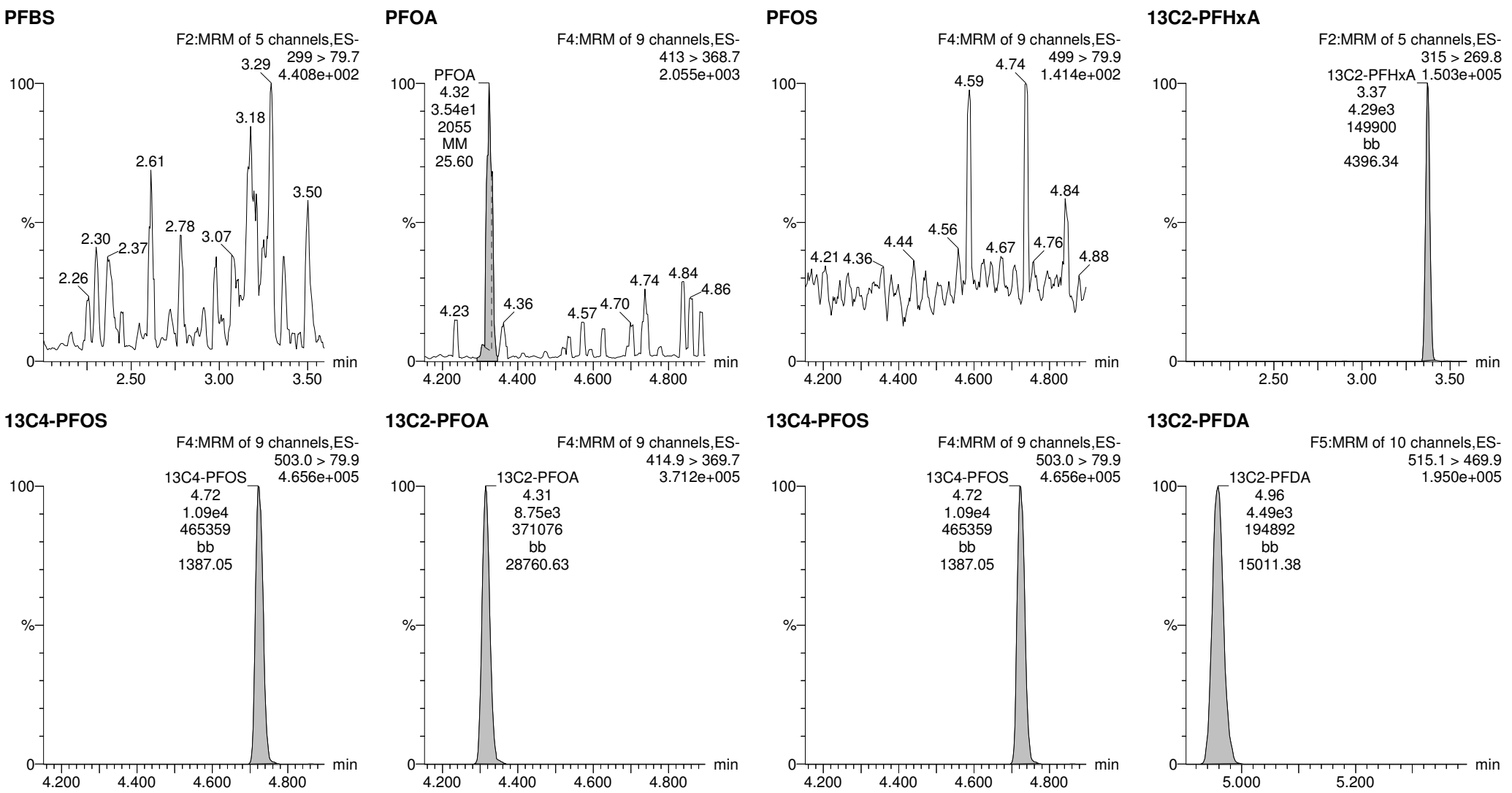
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Printed: Saturday, January 20, 2018 15:57:28 Pacific Standard Time

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 19 Jan 2018 15:02:03

Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180118G2_47, Date: 19-Jan-2018, Time: 01:07:19, ID: 1800080-05 CH-AT-2RW58C-0118 0.25535, Description: CH-AT-2RW58C-0118



Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__48.qld

Last Altered: Saturday, January 20, 2018 15:58:18 Pacific Standard Time

Printed: Saturday, January 20, 2018 15:58:46 Pacific Standard Time

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 19 Jan 2018 15:02:03

Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180118G2_48, Date: 19-Jan-2018, Time: 01:19:45, ID: 1800080-06 CH-AT-2FB58C-0118 0.24979, Description: CH-AT-2FB58C-0118

	# Name	Trace	Area	IS Area	RRF	wt/vol	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	2.33e0	9.84e3		0.2498	3.02	3.01	0.00678	0.0328	
2	5 PFOA	413 > 368.7	4.96e1	8.77e3		0.2498	4.32	4.32	0.0566	0.290	
3	7 PFOS	499 >79.9		9.84e3		0.2498	4.73				
4	15 13C2-PFHxA	315 > 269.8	4.15e3	8.77e3	0.517	0.2498	3.46	3.38	4.73	36.6	91.5
5	16 13C2-PFDA	515.1 > 469.9	4.45e3	8.77e3	0.543	0.2498	4.92	4.96	5.07	37.4	93.5
6	18 13C2-PFOA	414.9 > 369.7	8.77e3	8.77e3	1.000	0.2498	4.31	4.32	10.0	40.0	100.0
7	19 13C4-PFOS	503.0 > 79.9	9.84e3	9.84e3	1.000	0.2498	4.81	4.73	28.7	115	100.0

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__48.qld

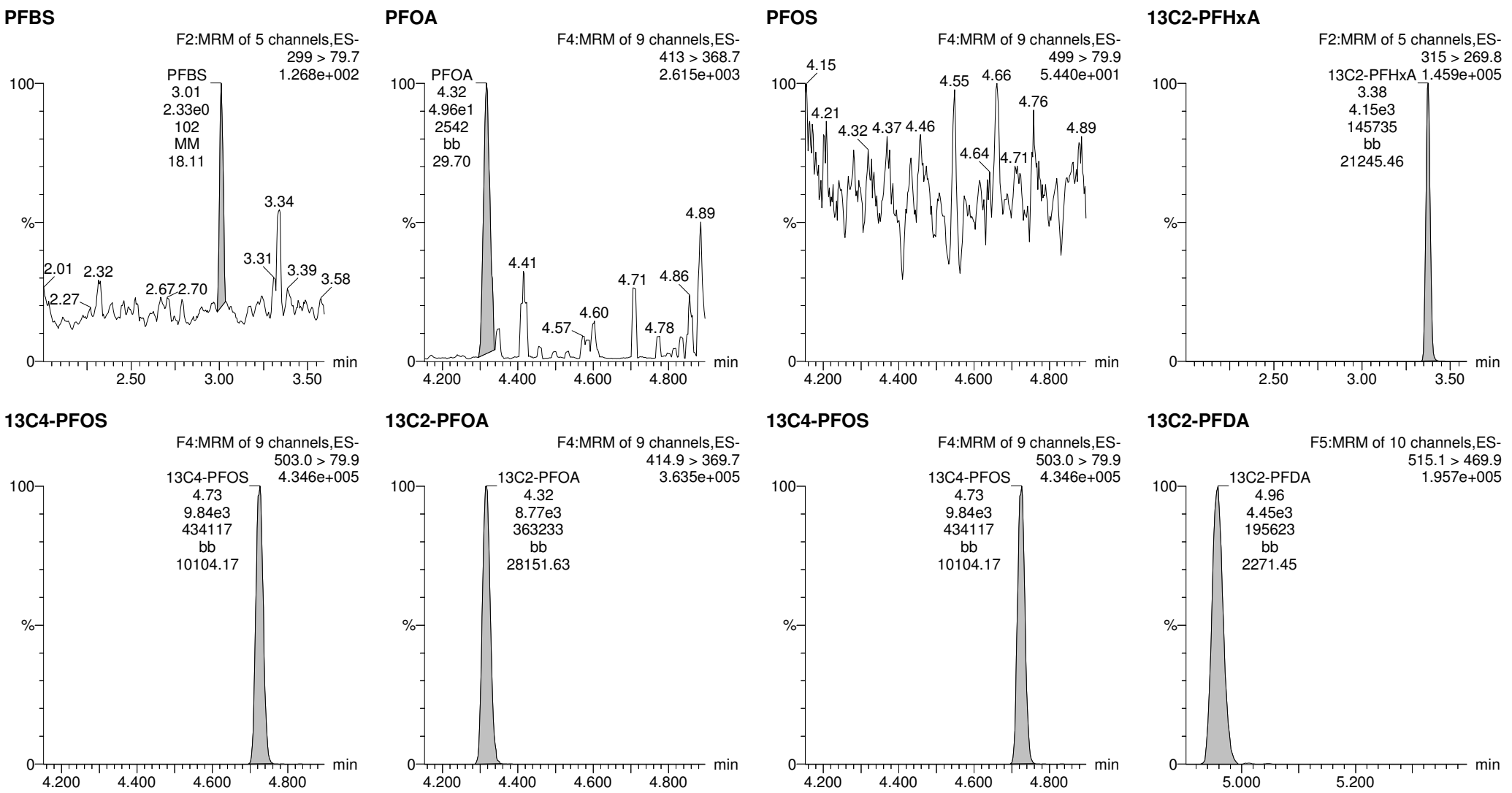
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Printed: Saturday, January 20, 2018 15:58:46 Pacific Standard Time

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 19 Jan 2018 15:02:03

Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180118G2_48, Date: 19-Jan-2018, Time: 01:19:45, ID: 1800080-06 CH-AT-2FB58C-0118 0.24979, Description: CH-AT-2FB58C-0118



Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__49.qld

Last Altered: Saturday, January 20, 2018 16:00:04 Pacific Standard Time

Printed: Saturday, January 20, 2018 16:00:35 Pacific Standard Time

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 19 Jan 2018 15:02:03

Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180118G2_49, Date: 19-Jan-2018, Time: 01:32:13, ID: 1800080-07 CH-AT-1RW146-0118 0.24276, Description: CH-AT-1RW146-0118

	# Name	Trace	Area	IS Area	RRF	wt/vol	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	7.72e1	9.78e3		0.2428	3.02	3.02	0.227	1.13	
2	5 PFOA	413 > 368.7	1.70e3	8.63e3		0.2428	4.32	4.31	1.97	10.4	
3	7 PFOS	499 >79.9	5.65e3	9.78e3		0.2428	4.72	4.72	16.6	60.0	
4	15 13C2-PFHxA	315 > 269.8	3.93e3	8.63e3	0.517	0.2428	3.46	3.37	4.55	36.3	88.0
5	16 13C2-PFDA	515.1 > 469.9	4.06e3	8.63e3	0.543	0.2428	4.92	4.96	4.70	35.7	86.6
6	18 13C2-PFOA	414.9 > 369.7	8.63e3	8.63e3	1.000	0.2428	4.31	4.32	10.0	41.2	100.0
7	19 13C4-PFOS	503.0 > 79.9	9.78e3	9.78e3	1.000	0.2428	4.81	4.72	28.7	118	100.0

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Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__49.qld

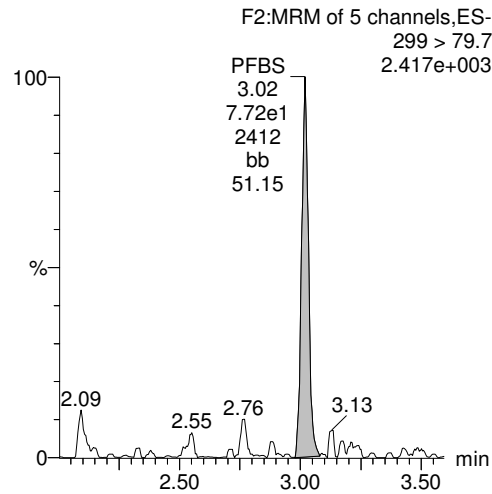
Last Altered: Saturday, January 20, 2018 16:00:04 Pacific Standard Time

Printed: Saturday, January 20, 2018 16:00:35 Pacific Standard Time

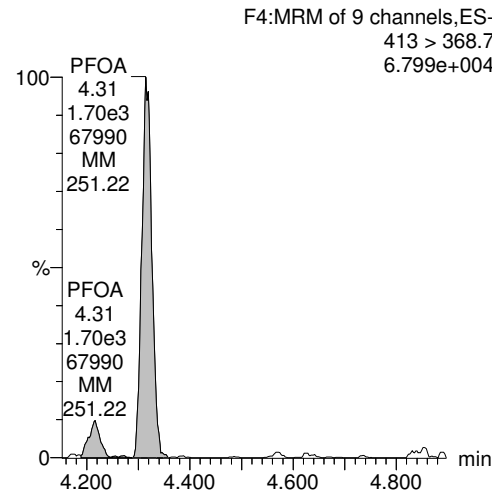
Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 19 Jan 2018 15:02:03
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180118G2_49, Date: 19-Jan-2018, Time: 01:32:13, ID: 1800080-07 CH-AT-1RW146-0118 0.24276, Description: CH-AT-1RW146-0118

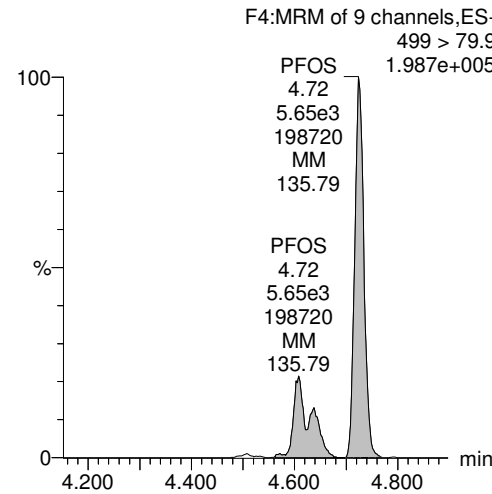
PFBS



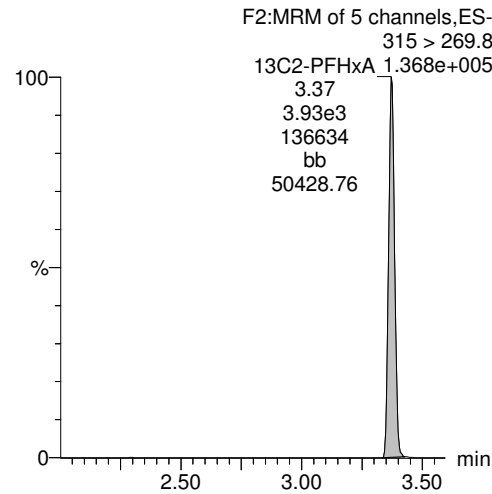
PFOA



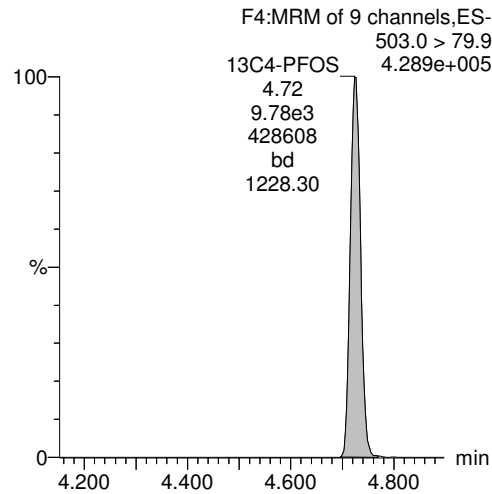
PFOS



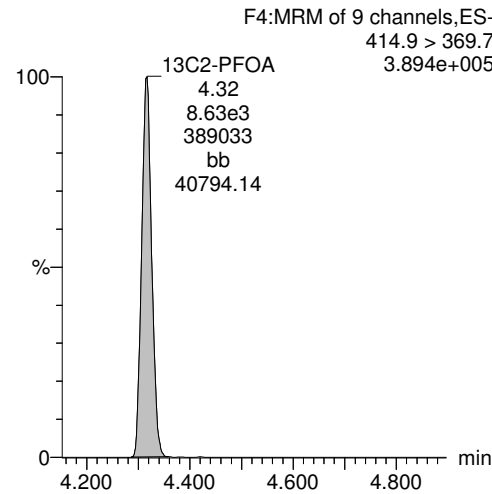
13C2-PFHxA



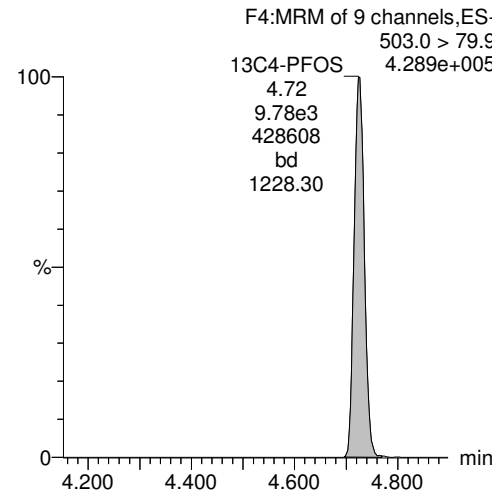
13C4-PFOS



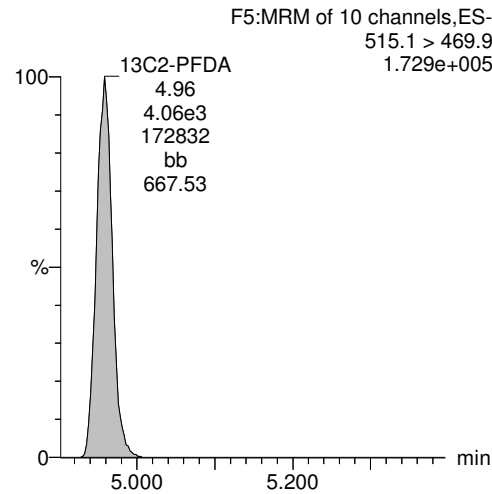
13C2-PFOA



13C4-PFOS



13C2-PFDA



MSF1/20/2018

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__18.qld

Last Altered: Monday, January 22, 2018 07:58:58 Pacific Standard Time

Printed: Monday, January 22, 2018 08:01:00 Pacific Standard Time

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 19 Jan 2018 15:02:03

Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180118G2_18, Date: 18-Jan-2018, Time: 19:07:00, ID: B8A0083-MS1 LFSM 0.24055, Description: LFSM

	# Name	Trace	Area	IS Area	RRF	wt/vol	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	1.25e3	1.01e4		0.2406	3.02	3.01	3.56	17.9	
2	5 PFOA	413 > 368.7	4.75e3	9.11e3		0.2406	4.31	4.31	5.21	27.7	
3	7 PFOS	499 >79.9	7.23e3	1.01e4		0.2406	4.72	4.72	20.5	75.1	
4	15 13C2-PFHxA	315 > 269.8	4.19e3	9.11e3	0.517	0.2406	3.46	3.37	4.60	37.0	89.0
5	16 13C2-PFDA	515.1 > 469.9	4.16e3	9.11e3	0.543	0.2406	4.92	4.96	4.57	35.0	84.3
6	18 13C2-PFOA	414.9 > 369.7	9.11e3	9.11e3	1.000	0.2406	4.31	4.31	10.0	41.6	100.0
7	19 13C4-PFOS	503.0 > 79.9	1.01e4	1.01e4	1.000	0.2406	4.81	4.72	28.7	119	100.0

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__18.qld

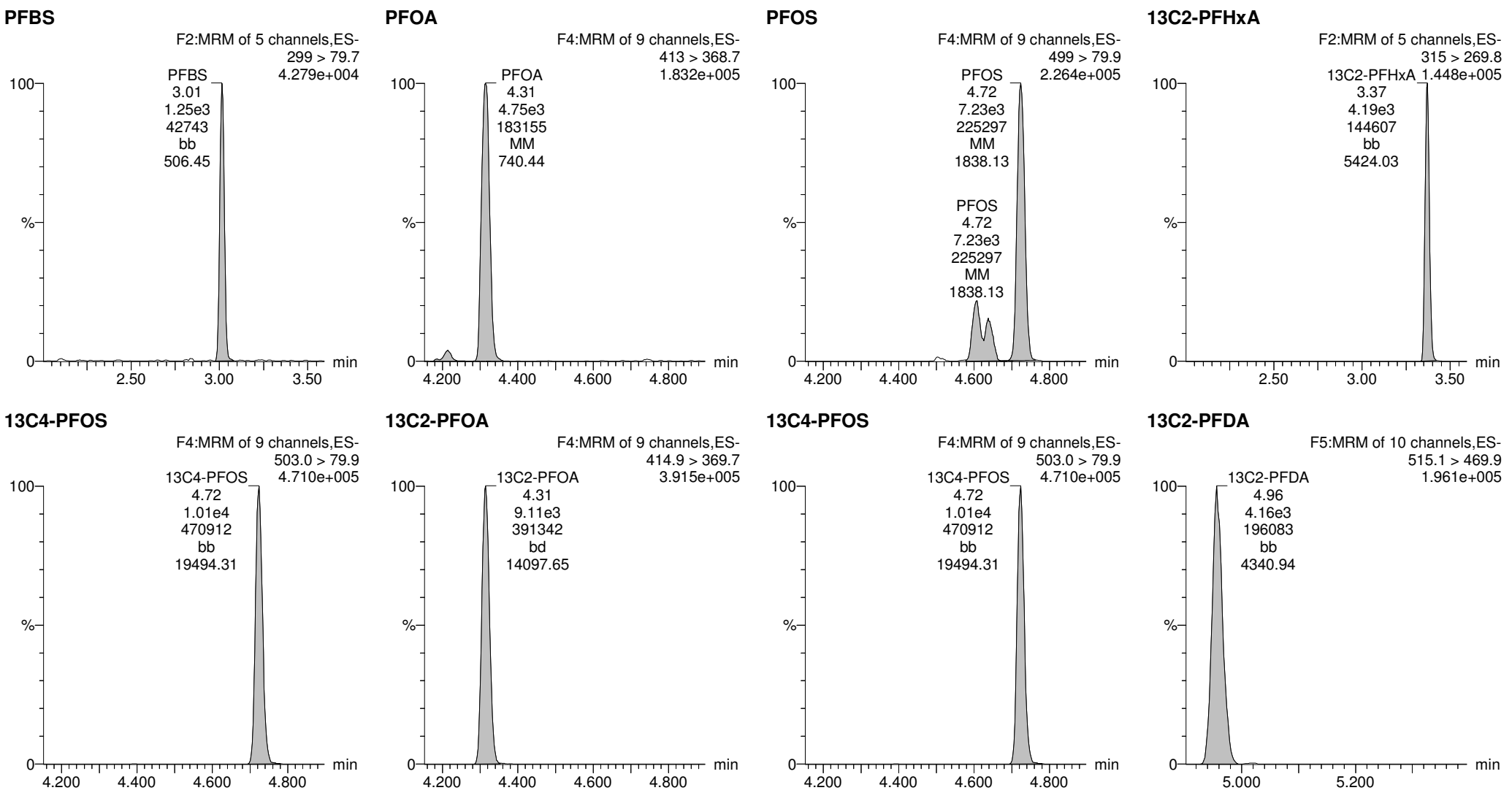
Last Altered: Monday, January 22, 2018 07:58:58 Pacific Standard Time

Printed: Monday, January 22, 2018 08:01:00 Pacific Standard Time

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 19 Jan 2018 15:02:03

Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180118G2_18, Date: 18-Jan-2018, Time: 19:07:00, ID: B8A0083-MS1 LFSM 0.24055, Description: LFSM



Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__19.qld

Last Altered: Monday, January 22, 2018 08:02:58 Pacific Standard Time

Printed: Monday, January 22, 2018 08:03:14 Pacific Standard Time

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 19 Jan 2018 15:02:03

Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180118G2_19, Date: 18-Jan-2018, Time: 19:19:27, ID: B8A0083-MSD1 LFSMD 0.2463, Description: LFSMD

	# Name	Trace	Area	IS Area	RRF	wt/vol	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	9.91e2	9.55e3		0.2463	3.02	3.02	2.98	14.6	
2	5 PFOA	413 > 368.7	4.71e3	8.72e3		0.2463	4.31	4.32	5.40	28.1	
3	7 PFOS	499 >79.9	7.22e3	9.55e3		0.2463	4.73	4.73	21.7	77.5	
4	15 13C2-PFHxA	315 > 269.8	3.92e3	8.72e3	0.517	0.2463	3.46	3.37	4.49	35.3	86.9
5	16 13C2-PFDA	515.1 > 469.9	4.08e3	8.72e3	0.543	0.2463	4.92	4.96	4.67	35.0	86.1
6	18 13C2-PFOA	414.9 > 369.7	8.72e3	8.72e3	1.000	0.2463	4.31	4.31	10.0	40.6	100.0
7	19 13C4-PFOS	503.0 > 79.9	9.55e3	9.55e3	1.000	0.2463	4.81	4.73	28.7	117	100.0

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__19.qld

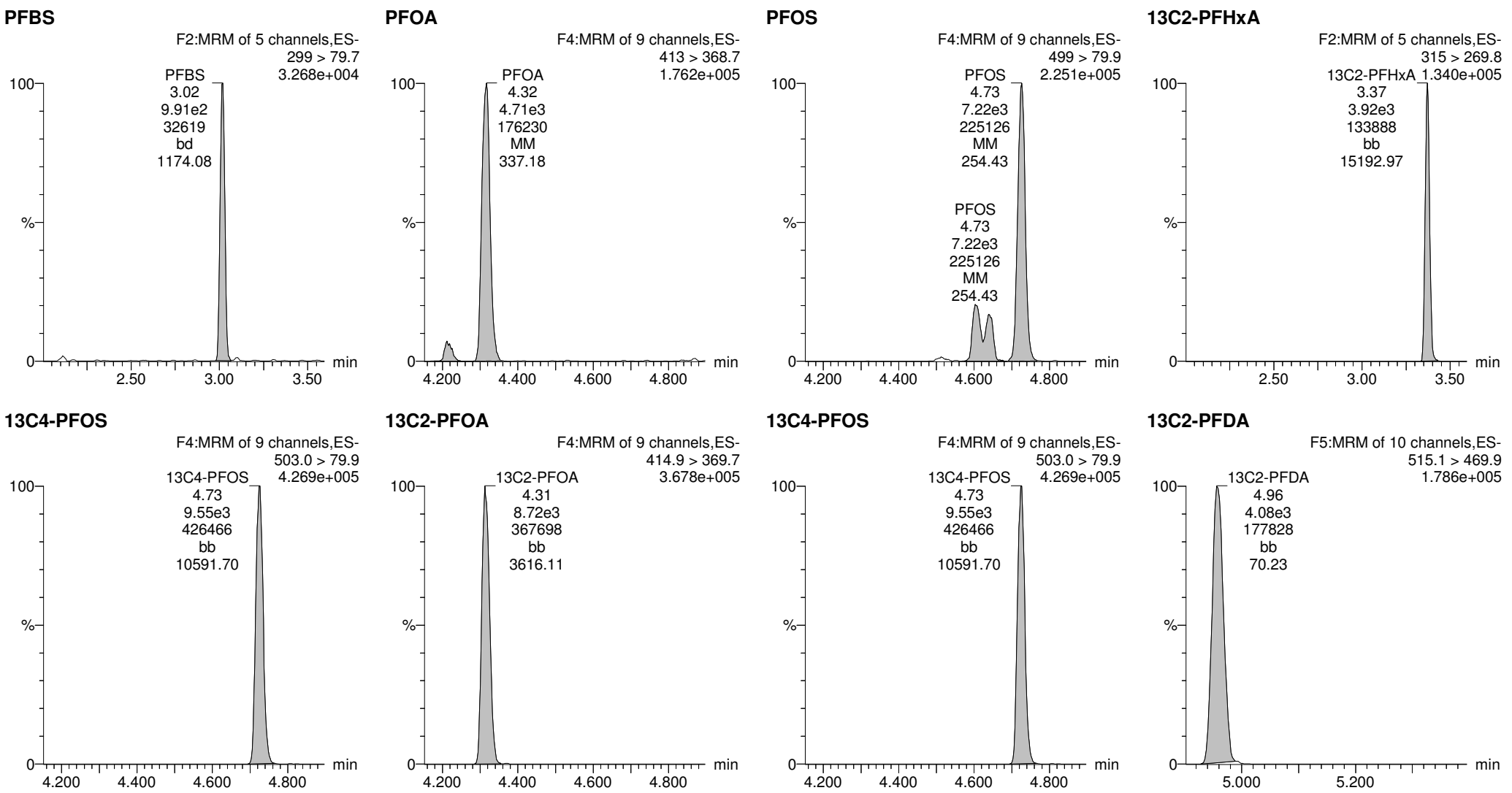
Last Altered: Monday, January 22, 2018 08:02:58 Pacific Standard Time

Printed: Monday, January 22, 2018 08:03:14 Pacific Standard Time

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 19 Jan 2018 15:02:03

Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180118G2_19, Date: 18-Jan-2018, Time: 19:19:27, ID: B8A0083-MSD1 LFSMD 0.2463, Description: LFSMD



Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__50.qld

Last Altered: Saturday, January 20, 2018 16:01:23 Pacific Standard Time

Printed: Saturday, January 20, 2018 16:01:42 Pacific Standard Time

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 19 Jan 2018 15:02:03

Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180118G2_50, Date: 19-Jan-2018, Time: 01:44:40, ID: 1800080-08 CH-AT-1FB146-0118 0.24492, Description: CH-AT-1FB146-0118

	# Name	Trace	Area	IS Area	RRF	wt/vol	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7		9.20e3		0.2449	3.02				
2	5 PFOA	413 > 368.7	1.01e2	9.08e3		0.2449	4.31	4.32	0.111	0.580	
3	7 PFOS	499 >79.9		9.20e3		0.2449	4.72				
4	15 13C2-PFHxA	315 > 269.8	3.61e3	9.08e3	0.517	0.2449	3.46	3.38	3.97	31.4	76.8
5	16 13C2-PFDA	515.1 > 469.9	4.20e3	9.08e3	0.543	0.2449	4.92	4.96	4.62	34.8	85.1
6	18 13C2-PFOA	414.9 > 369.7	9.08e3	9.08e3	1.000	0.2449	4.31	4.31	10.0	40.8	100.0
7	19 13C4-PFOS	503.0 > 79.9	9.20e3	9.20e3	1.000	0.2449	4.81	4.72	28.7	117	100.0

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__50.qld

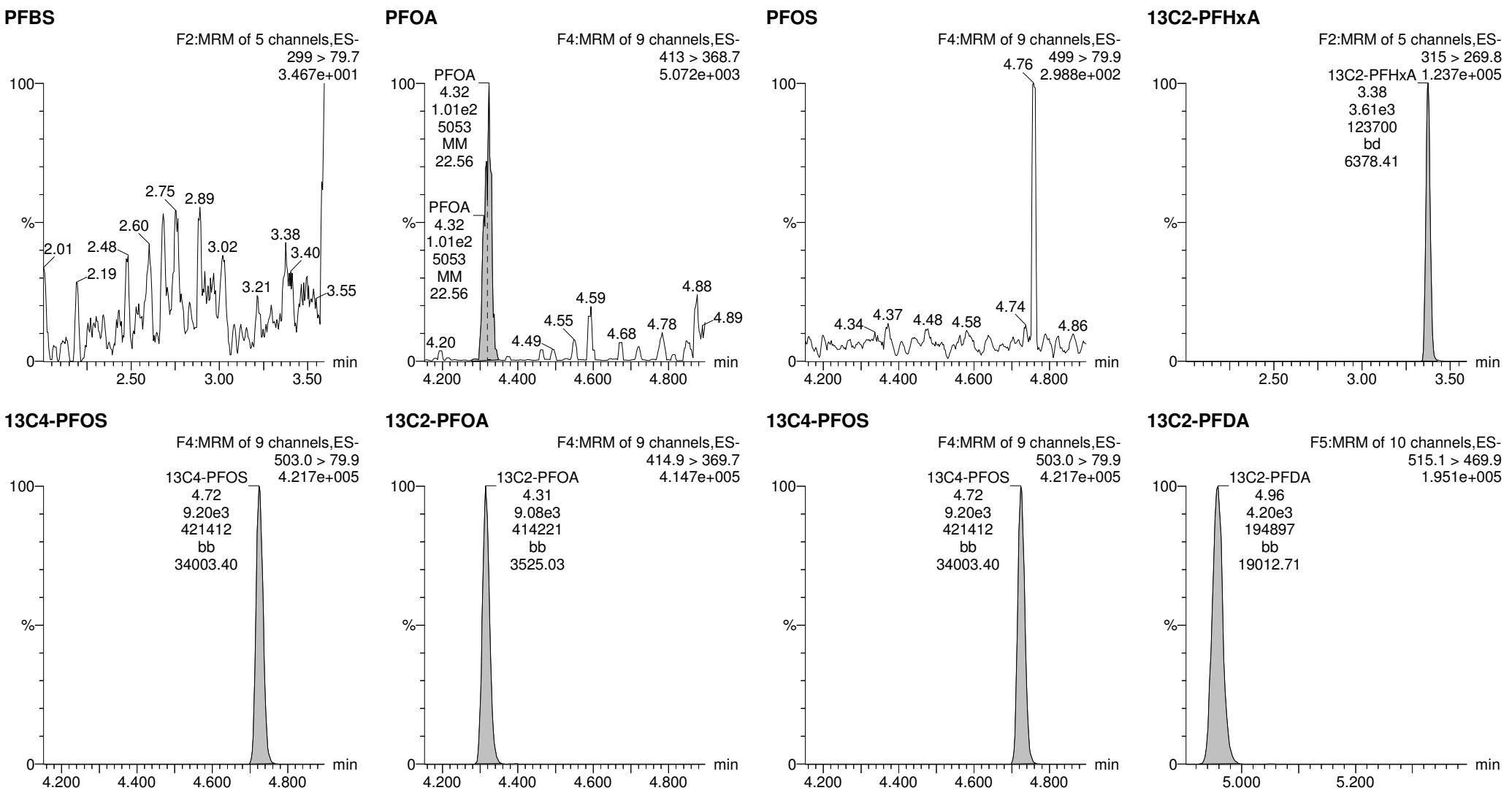
Rev'd: MM 1/21/18

Last Altered: Saturday, January 20, 2018 16:01:23 Pacific Standard Time

Printed: Saturday, January 20, 2018 16:01:42 Pacific Standard Time

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 19 Jan 2018 15:02:03
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180118G2_50, Date: 19-Jan-2018, Time: 01:44:40, ID: 1800080-08 CH-AT-1FB146-0118 0.24492, Description: CH-AT-1FB146-0118



**INJECTION INTERNAL STANDARD (IIS) AREAS,
INSTRUMENT BLANKS (IB)
AND
CONTINUING CALIBRATION VERIFICATIONS CCV)**

Compound 18: 13C2-PFOA

ID	Name	Type	Std. Conc	RT	Area	ICAL AREA	% AREA
1 IPA	180118G2_1	Analyte	10			7033.69	0.00
2 ST18018G2-1 PFC CS-1 537 18A1203	180118G2_2	Analyte	10	4.32	10184.87	7033.69	144.80
3 IPA	180118G2_3	Analyte	10			7033.69	0.00
4 1800007-06 REEPDW084 0.25931	180118G2_4	Analyte	10	4.32	8719.07	7033.69	123.96
5 1800009-01 REEPDW078FRB 0.26054	180118G2_5	Analyte	10	4.31	10740.5	7033.69	152.70
6 1800007-05 @5XREEPDW082 0.25581	180118G2_6	Analyte	10	4.32	1698.415	7033.69	24.15
7 1800007-07 @5X REEPDW083 0.25486	180118G2_7	Analyte	10	4.31	1915.678	7033.69	27.24
8 1800016-03 @5X REEPDW086 0.25471	180118G2_8	Analyte	10	4.31	4778.652	7033.69	67.94
9 1800016-03 REEPDW086 0.25471	180118G2_9	Analyte	10	4.31	20040.97	7033.69	284.93
10 IPA	180118G2_10	Analyte	10			7033.69	0.00
11 B8A0066-BLK1 LRB 0.25	180118G2_11	Analyte	10	4.31	8440.001	7033.69	119.99
12 B8A0083-BLK1 LRB 0.25	180118G2_12	Analyte	10	4.31	9261.266	7033.69	131.67
13 B8A0089-BLK1 LRB 0.25	180118G2_13	Analyte	10	4.31	8608.001	7033.69	122.38
14 B8A0066-BS1 LFB 0.25	180118G2_14	Analyte	10	4.31	8103.479	7033.69	115.21
15 B8A0066-MS1 LFSM 0.27048	180118G2_15	Analyte	10	4.31	6971.322	7033.69	99.11
16 B8A0066-MSD1 LFSMD 0.26633	180118G2_16	Analyte	10	4.31	6060.324	7033.69	86.16
17 B8A0083-BS1 LFB 0.25	180118G2_17	Analyte	10	4.31	8478.851	7033.69	120.55
18 B8A0083-MS1 LFSM 0.24055	180118G2_18	Analyte	10	4.31	9105.205	7033.69	129.45
19 B8A0083-MSD1 LFSMD 0.2463	180118G2_19	Analyte	10	4.31	8721.891	7033.69	124.00
20 B8A0089-BS1 LFB 0.25	180118G2_20	Analyte	10	4.31	8518.26	7033.69	121.11
21 B8A0089-MS1 LFSM 0.24449	180118G2_21	Analyte	10	4.31	8707.365	7033.69	123.80
22 B8A0089-MSD1 LFSMD 0.24187	180118G2_22	Analyte	10	4.31	8411.189	7033.69	119.58
23 1800043-01 REEPDW094 0.27915	180118G2_23	Analyte	10	4.32	6045.777	7033.69	85.95
24 1800043-02 REEPDW095 0.27047	180118G2_24	Analyte	10	4.31	9513.335	7033.69	135.25
25 1800043-03 REEPDW096 0.28406	180118G2_25	Analyte	10	4.31	8342.285	7033.69	118.60
26 1800043-04 REEPDW097 0.26571	180118G2_26	Analyte	10	4.32	9285.538	7033.69	132.02
27 IPA	180118G2_27	Analyte	10			7033.69	0.00
28 ST180118G2-2 PFC CS2 537 18A1206	180118G2_28	Standard	10	4.31	9600.221	7033.69	136.49
29 IPA	180118G2_29	Analyte	10	4.32	5.897	7033.69	0.08

30	1800043-05 REEPDW098 0.27228	180118G2_30	Analyte	10	4.31	9276.619	7033.69	131.89
31	1800043-06 REEPDW099 0.26823	180118G2_31	Analyte	10	4.31	9043.716	7033.69	128.58
32	1800043-07 REEPDW100 0.28558	180118G2_32	Analyte	10	4.31	6460.694	7033.69	91.85
33	1800043-08 REEPDW509 0.27456	180118G2_33	Analyte	10	4.32	6855.057	7033.69	97.46
34	1800043-09 REEPDW101 0.28336	180118G2_34	Analyte	10	4.31	8430.472	7033.69	119.86
35	1800043-10 REEPDW102 0.26529	180118G2_35	Analyte	10	4.31	8711.074	7033.69	123.85
36	1800043-11 REEPDW103 0.26168	180118G2_36	Analyte	10	4.32	9711.13	7033.69	138.07
37	1800043-12 REEPDW104 0.27166	180118G2_37	Analyte	10	4.31	8977.039	7033.69	127.63
38	1800043-13 REEPDW105 0.26297	180118G2_38	Analyte	10	4.32	9082.643	7033.69	129.13
39	1800043-14 REEPDW106 0.26776	180118G2_39	Analyte	10	4.32	9151.533	7033.69	130.11
40	IPA	180118G2_40	Analyte	10			7033.69	0.00
41	ST180118G2-3 PFC CS4 537 18A1208	180118G2_41	Standard	10	4.32	9041.63	7033.69	128.55
42	IPA	180118G2_42	Analyte	10			7033.69	0.00
43	1800080-01 CH-AT-2RW58-0118 0.250	180118G2_43	Analyte	10	4.32	9515.88	7033.69	135.29
44	1800080-02 CH-AT-2FB58-0118 0.2501	180118G2_44	Analyte	10	4.31	9092.011	7033.69	129.26
45	1800080-03 CH-AT-2RW58B-0118 0.24	180118G2_45	Analyte	10	4.31	10295.49	7033.69	146.37
46	1800080-04 CH-AT-2FB58B-0118 0.251	180118G2_46	Analyte	10	4.31	9064.319	7033.69	128.87
47	1800080-05 CH-AT-2RW58C-0118 0.25	180118G2_47	Analyte	10	4.31	8751.378	7033.69	124.42
48	1800080-06 CH-AT-2FB58C-0118 0.245	180118G2_48	Analyte	10	4.32	8768.734	7033.69	124.67
49	1800080-07 CH-AT-1RW146-0118 0.24	180118G2_49	Analyte	10	4.32	8632.391	7033.69	122.73
50	1800080-08 CH-AT-1FB146-0118 0.244	180118G2_50	Analyte	10	4.31	9084.429	7033.69	129.16
51	1800085-01 IR54-PSW-VL101-17D 0.24	180118G2_51	Analyte	10	4.31	8528.555	7033.69	121.25
52	1800085-02 IR54-PSW-VL101D-17D 0.1	180118G2_52	Analyte	10	4.32	8768.658	7033.69	124.67
53	1800085-03 IR54-PSW-FB-17D 0.25105	180118G2_53	Analyte	10	4.31	8111.066	7033.69	115.32
54	1800016-04 REEPDW087 0.26892	180118G2_54	Analyte	10	4.32	9894.182	7033.69	140.67
55	IPA	180118G2_55	Analyte	10			7033.69	0.00
56	ST18011G2-4 PFC CS2 537 18A1206	180118G2_56	Standard	10	4.32	10403.85	7033.69	147.91

Compound 19: 13C4-PFOS

ID	Name	Type	Std. Conc	RT	Area	ICAL AREA	% AREA
1	IPA	Analyte	28.7			8901.85	0.00
2	ST18018G2-1 PFC CS-1 537 18A1203	Analyte	28.7	4.72	12442.6	8901.85	139.78
3	IPA	Analyte	28.7			8901.85	0.00

4	1800007-06 REEPDW084 0.25931	180118G2_4	Analyte	28.7	4.73	10647.31	8901.85	119.61
5	1800009-01 REEPDW078FRB 0.26054	180118G2_5	Analyte	28.7	4.72	13771.77	8901.85	154.71
6	1800007-05 @5XREEPDW082 0.25581	180118G2_6	Analyte	28.7	4.72	2182.178	8901.85	24.51
7	1800007-07 @5X REEPDW083 0.25486	180118G2_7	Analyte	28.7	4.72	2505.163	8901.85	28.14
8	1800016-03 @5X REEPDW086 0.25471	180118G2_8	Analyte	28.7	4.72	4936.765	8901.85	55.46
9	1800016-03 REEPDW086 0.25471	180118G2_9	Analyte	28.7	4.72	18592.65	8901.85	208.86
10	IPA	180118G2_10	Analyte	28.7			8901.85	0.00
11	B8A0066-BLK1 LRB 0.25	180118G2_11	Analyte		4.72	9378.711	8901.85	105.36
12	B8A0083-BLK1 LRB 0.25	180118G2_12	Analyte		4.72	9799.598	8901.85	110.08
13	B8A0089-BLK1 LRB 0.25	180118G2_13	Analyte		4.72	10526.9	8901.85	118.26
14	B8A0066-BS1 LFB 0.25	180118G2_14	Analyte		4.72	10108.33	8901.85	113.55
15	B8A0066-MS1 LFSM 0.27048	180118G2_15	Analyte		4.72	10482.22	8901.85	117.75
16	B8A0066-MSD1 LFSMD 0.26633	180118G2_16	Analyte		4.72	9779.064	8901.85	109.85
17	B8A0083-BS1 LFB 0.25	180118G2_17	Analyte		4.72	9102.559	8901.85	102.25
18	B8A0083-MS1 LFSM 0.24055	180118G2_18	Analyte		4.72	10099.21	8901.85	113.45
19	B8A0083-MSD1 LFSMD 0.2463	180118G2_19	Analyte		4.73	9550.013	8901.85	107.28
20	B8A0089-BS1 LFB 0.25	180118G2_20	Analyte		4.72	8610.556	8901.85	96.73
21	B8A0089-MS1 LFSM 0.24449	180118G2_21	Analyte		4.73	9695.756	8901.85	108.92
22	B8A0089-MSD1 LFSMD 0.24187	180118G2_22	Analyte		4.72	8860.526	8901.85	99.54
23	1800043-01 REEPDW094 0.27915	180118G2_23	Analyte		4.72	11277.63	8901.85	126.69
24	1800043-02 REEPDW095 0.27047	180118G2_24	Analyte		4.73	10702.65	8901.85	120.23
25	1800043-03 REEPDW096 0.28406	180118G2_25	Analyte		4.72	10603.99	8901.85	119.12
26	1800043-04 REEPDW097 0.26571	180118G2_26	Analyte		4.73	10651.17	8901.85	119.65
27	IPA	180118G2_27	Analyte	28.7			8901.85	0.00
28	ST180118G2-2 PFC CS2 537 18A1206	180118G2_28	Standard	28.7	4.72	10796.66	8901.85	121.29
29	IPA	180118G2_29	Analyte	28.7			8901.85	0.00
30	1800043-05 REEPDW098 0.27228	180118G2_30	Analyte		4.72	10369.46	8901.85	116.49
31	1800043-06 REEPDW099 0.26823	180118G2_31	Analyte		4.72	10226.41	8901.85	114.88
32	1800043-07 REEPDW100 0.28558	180118G2_32	Analyte		4.72	9237.149	8901.85	103.77
33	1800043-08 REEPDW509 0.27456	180118G2_33	Analyte		4.72	9863.241	8901.85	110.80
34	1800043-09 REEPDW101 0.28336	180118G2_34	Analyte		4.72	8393.599	8901.85	94.29
35	1800043-10 REEPDW102 0.26529	180118G2_35	Analyte		4.73	9853.316	8901.85	110.69
36	1800043-11 REEPDW103 0.26168	180118G2_36	Analyte		4.73	9983.317	8901.85	112.15
37	1800043-12 REEPDW104 0.27166	180118G2_37	Analyte		4.72	10193.21	8901.85	114.51

38	1800043-13 REEPDW105 0.26297	180118G2_38	Analyte		4.73	9576.133	8901.85	107.57
39	1800043-14 REEPDW106 0.26776	180118G2_39	Analyte		4.73	9837.97	8901.85	110.52
40	IPA	180118G2_40	Analyte	28.7			8901.85	0.00
41	ST180118G2-3 PFC CS4 537 18A1208	180118G2_41	Standard	28.7	4.72	9592.067	8901.85	107.75
42	IPA	180118G2_42	Analyte	28.7			8901.85	0.00
43	1800080-01 CH-AT-2RW58-0118 0.250	180118G2_43	Analyte		4.73	10825.92	8901.85	121.61
44	1800080-02 CH-AT-2FB58-0118 0.2501	180118G2_44	Analyte		4.72	10483.76	8901.85	117.77
45	1800080-03 CH-AT-2RW58B-0118 0.24	180118G2_45	Analyte		4.72	11023.11	8901.85	123.83
46	1800080-04 CH-AT-2FB58B-0118 0.251	180118G2_46	Analyte		4.72	10127.07	8901.85	113.76
47	1800080-05 CH-AT-2RW58C-0118 0.25	180118G2_47	Analyte		4.72	10858.4	8901.85	121.98
48	1800080-06 CH-AT-2FB58C-0118 0.245	180118G2_48	Analyte		4.73	9844.716	8901.85	110.59
49	1800080-07 CH-AT-1RW146-0118 0.24	180118G2_49	Analyte		4.72	9780.863	8901.85	109.87
50	1800080-08 CH-AT-1FB146-0118 0.244	180118G2_50	Analyte		4.72	9202.914	8901.85	103.38
51	1800085-01 IR54-PSW-VL101-17D 0.24	180118G2_51	Analyte		4.73	8751.128	8901.85	98.31
52	1800085-02 IR54-PSW-VL101D-17D 0.1	180118G2_52	Analyte		4.73	9279.875	8901.85	104.25
53	1800085-03 IR54-PSW-FB-17D 0.25105	180118G2_53	Analyte		4.72	8745.02	8901.85	98.24
54	1800016-04 REEPDW087 0.26892	180118G2_54	Analyte	28.7	4.73	11351.55	8901.85	127.52
55	IPA	180118G2_55	Analyte	28.7			8901.85	0.00
56	ST18011G2-4 PFC CS2 537 18A1206	180118G2_56	Standard	28.7	4.73	10601.19	8901.85	119.09

Compound 20: d3-N-MeFOSAA

ID	Name	Type	Std. Conc	RT	Area	ICAL AREA	% AREA
1 IPA	180118G2_1	Analyte	40			4828.68	0.00
2 ST18018G2-1 PFC CS-1 537 18A1203	180118G2_2	Analyte	40	5.08	7111.229	4828.68	147.27
3 IPA	180118G2_3	Analyte	40			4828.68	0.00
4 1800007-06 REEPDW084 0.25931	180118G2_4	Analyte	40	5.08	6589.457	4828.68	136.46
5 1800009-01 REEPDW078FRB 0.26054	180118G2_5	Analyte	40	5.08	7758.009	4828.68	160.67
6 1800007-05 @5XREEPDW082 0.25581	180118G2_6	Analyte	40	5.08	1068.297	4828.68	22.12
7 1800007-07 @5X REEPDW083 0.25486	180118G2_7	Analyte	40	5.08	1207.651	4828.68	25.01
8 1800016-03 @5X REEPDW086 0.25471	180118G2_8	Analyte	40	5.08	3557.493	4828.68	73.67
9 1800016-03 REEPDW086 0.25471	180118G2_9	Analyte	40	5.08	16816.49	4828.68	348.26
10 IPA	180118G2_10	Analyte	40			4828.68	0.00
11 B8A0066-BLK1 LRB 0.25	180118G2_11	Analyte	40	5.08	5705.455	4828.68	118.16

12	B8A0083-BLK1 LRB 0.25	180118G2_12	Analyte	40	5.08	5117.452	4828.68	105.98
13	B8A0089-BLK1 LRB 0.25	180118G2_13	Analyte	40	5.08	6271.847	4828.68	129.89
14	B8A0066-BS1 LFB 0.25	180118G2_14	Analyte	40	5.08	5327.652	4828.68	110.33
15	B8A0066-MS1 LFSM 0.27048	180118G2_15	Analyte	40	5.08	6020.557	4828.68	124.68
16	B8A0066-MSD1 LFSMD 0.26633	180118G2_16	Analyte	40	5.08	5473.931	4828.68	113.36
17	B8A0083-BS1 LFB 0.25	180118G2_17	Analyte	40	5.08	5523.66	4828.68	114.39
18	B8A0083-MS1 LFSM 0.24055	180118G2_18	Analyte	40	5.08	6091.664	4828.68	126.16
19	B8A0083-MSD1 LFSMD 0.2463	180118G2_19	Analyte	40	5.08	5465.365	4828.68	113.19
20	B8A0089-BS1 LFB 0.25	180118G2_20	Analyte	40	5.08	5411.224	4828.68	112.06
21	B8A0089-MS1 LFSM 0.24449	180118G2_21	Analyte	40	5.09	4936.071	4828.68	102.22
22	B8A0089-MSD1 LFSMD 0.24187	180118G2_22	Analyte	40	5.09	4939.387	4828.68	102.29
23	1800043-01 REEPDW094 0.27915	180118G2_23	Analyte	40	5.08	6401.689	4828.68	132.58
24	1800043-02 REEPDW095 0.27047	180118G2_24	Analyte	40	5.08	5817.382	4828.68	120.48
25	1800043-03 REEPDW096 0.28406	180118G2_25	Analyte	40	5.08	5236.629	4828.68	108.45
26	1800043-04 REEPDW097 0.26571	180118G2_26	Analyte	40	5.08	6101.565	4828.68	126.36
27	IPA	180118G2_27	Analyte	40			4828.68	0.00
28	ST180118G2-2 PFC CS2 537 18A1206	180118G2_28	Standard	40	5.08	5140.72	4828.68	106.46
29	IPA	180118G2_29	Analyte	40			4828.68	0.00
30	1800043-05 REEPDW098 0.27228	180118G2_30	Analyte	40	5.08	5570.485	4828.68	115.36
31	1800043-06 REEPDW099 0.26823	180118G2_31	Analyte	40	5.08	5796.455	4828.68	120.04
32	1800043-07 REEPDW100 0.28558	180118G2_32	Analyte	40	5.08	6031.292	4828.68	124.91
33	1800043-08 REEPDW509 0.27456	180118G2_33	Analyte	40	5.08	6037.827	4828.68	125.04
34	1800043-09 REEPDW101 0.28336	180118G2_34	Analyte	40	5.08	6115.861	4828.68	126.66
35	1800043-10 REEPDW102 0.26529	180118G2_35	Analyte	40	5.08	5956.016	4828.68	123.35
36	1800043-11 REEPDW103 0.26168	180118G2_36	Analyte	40	5.08	5633.1	4828.68	116.66
37	1800043-12 REEPDW104 0.27166	180118G2_37	Analyte	40	5.08	5608.666	4828.68	116.15
38	1800043-13 REEPDW105 0.26297	180118G2_38	Analyte	40	5.08	6094.922	4828.68	126.22
39	1800043-14 REEPDW106 0.26776	180118G2_39	Analyte	40	5.09	5643.012	4828.68	116.86
40	IPA	180118G2_40	Analyte	40			4828.68	0.00
41	ST180118G2-3 PFC CS4 537 18A1208	180118G2_41	Standard	40	5.09	6271.517	4828.68	129.88
42	IPA	180118G2_42	Analyte	40			4828.68	0.00
43	1800080-01 CH-AT-2RW58-0118 0.250	180118G2_43	Analyte	40	5.09	5780.859	4828.68	119.72
44	1800080-02 CH-AT-2FB58-0118 0.250	180118G2_44	Analyte	40	5.08	5565.08	4828.68	115.25
45	1800080-03 CH-AT-2RW58B-0118 0.24	180118G2_45	Analyte	40	5.08	6432.375	4828.68	133.21

46	1800080-04 CH-AT-2FB58B-0118 0.251	180118G2_46	Analyte	40	5.08	5907.788	4828.68	122.35
47	1800080-05 CH-AT-2RW58C-0118 0.25	180118G2_47	Analyte	40	5.08	5391.522	4828.68	111.66
48	1800080-06 CH-AT-2FB58C-0118 0.24	180118G2_48	Analyte	40	5.08	6106.041	4828.68	126.45
49	1800080-07 CH-AT-1RW146-0118 0.24	180118G2_49	Analyte	40	5.09	5788.126	4828.68	119.87
50	1800080-08 CH-AT-1FB146-0118 0.24	180118G2_50	Analyte	40	5.08	5821.937	4828.68	120.57
51	1800085-01 IR54-PSW-VL101-17D 0.2	180118G2_51	Analyte	40	5.08	5037.459	4828.68	104.32
52	1800085-02 IR54-PSW-VL101D-17D 0.	180118G2_52	Analyte	40	5.08	5083.775	4828.68	105.28
53	1800085-03 IR54-PSW-FB-17D 0.2510	180118G2_53	Analyte	40	5.08	5081.091	4828.68	105.23
54	1800016-04 REEPDW087 0.26892	180118G2_54	Analyte	40	5.08	5592.342	4828.68	115.82
55	IPA	180118G2_55	Analyte	40			4828.68	0.00
56	ST18011G2-4 PFC CS2 537 18A1206	180118G2_56	Standard	40	5.09	5232.268	4828.68	108.36

CCAL

Compound 18: 13C2-PFOA

ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
1	IPA	180118G2_1	Analyte	10			
2	ST18018G2-1 PFC CS-1 537 18A1203	180118G2_2	Analyte	10	4.32	10184.87	10184.871 100.00
3	IPA	180118G2_3	Analyte	10			10184.871 0.00
4	1800007-06 REEPDW084 0.25931	180118G2_4	Analyte	10	4.32	8719.07	10184.871 85.61
5	1800009-01 REEPDW078FRB 0.26054	180118G2_5	Analyte	10	4.31	10740.5	10184.871 105.46
6	1800007-05 @5XREEPDW082 0.25581	180118G2_6	Analyte	10	4.32	1698.415	10184.871 16.68
7	1800007-07 @5X REEPDW083 0.25486	180118G2_7	Analyte	10	4.31	1915.678	10184.871 18.81
8	1800016-03 @5X REEPDW086 0.25471	180118G2_8	Analyte	10	4.31	4778.652	10184.871 46.92
9	1800016-03 REEPDW086 0.25471	180118G2_9	Analyte	10	4.31	20040.97	10184.871 196.77
10	IPA	180118G2_10	Analyte	10			10184.871 0.00
11	B8A0066-BLK1 LRB 0.25	180118G2_11	Analyte	10	4.31	8440.001	10184.871 82.87
12	B8A0083-BLK1 LRB 0.25	180118G2_12	Analyte	10	4.31	9261.266	10184.871 90.93
13	B8A0089-BLK1 LRB 0.25	180118G2_13	Analyte	10	4.31	8608.001	10184.871 84.52
14	B8A0066-BS1 LFB 0.25	180118G2_14	Analyte	10	4.31	8103.479	10184.871 79.56
15	B8A0066-MS1 LFSM 0.27048	180118G2_15	Analyte	10	4.31	6971.322	10184.871 68.45
16	B8A0066-MSD1 LFSMD 0.26633	180118G2_16	Analyte	10	4.31	6060.324	10184.871 59.50

17	B8A0083-BS1 LFB 0.25	180118G2_17	Analyte	10	4.31	8478.851	10184.871	83.25
18	B8A0083-MS1 LFSM 0.24055	180118G2_18	Analyte	10	4.31	9105.205	10184.871	89.40
19	B8A0083-MSD1 LFSMD 0.2463	180118G2_19	Analyte	10	4.31	8721.891	10184.871	85.64
20	B8A0089-BS1 LFB 0.25	180118G2_20	Analyte	10	4.31	8518.26	10184.871	83.64
21	B8A0089-MS1 LFSM 0.24449	180118G2_21	Analyte	10	4.31	8707.365	10184.871	85.49
22	B8A0089-MSD1 LFSMD 0.24187	180118G2_22	Analyte	10	4.31	8411.189	10184.871	82.59
23	1800043-01 REEPDW094 0.27915	180118G2_23	Analyte	10	4.32	6045.777	10184.871	59.36
24	1800043-02 REEPDW095 0.27047	180118G2_24	Analyte	10	4.31	9513.335	10184.871	93.41
25	1800043-03 REEPDW096 0.28406	180118G2_25	Analyte	10	4.31	8342.285	10184.871	81.91
26	1800043-04 REEPDW097 0.26571	180118G2_26	Analyte	10	4.32	9285.538	10184.871	91.17
27	IPA	180118G2_27	Analyte	10			10184.871	0.00
28	ST180118G2-2 PFC CS2 537 18A1206	180118G2_28	Standard	10	4.31	9600.221	10184.871	94.26
29	IPA							

CCAL 2

Compound 18: 13C2-PFOA

ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
30 1800043-05 REEPDW098 0.27228	180118G2_30	Analyte	10	4.31	9276.619	9600.221	96.63
31 1800043-06 REEPDW099 0.26823	180118G2_31	Analyte	10	4.31	9043.716	9600.221	94.20
32 1800043-07 REEPDW100 0.28558	180118G2_32	Analyte	10	4.31	6460.694	9600.221	67.30
33 1800043-08 REEPDW509 0.27456	180118G2_33	Analyte	10	4.32	6855.057	9600.221	71.41
34 1800043-09 REEPDW101 0.28336	180118G2_34	Analyte	10	4.31	8430.472	9600.221	87.82
35 1800043-10 REEPDW102 0.26529	180118G2_35	Analyte	10	4.31	8711.074	9600.221	90.74
36 1800043-11 REEPDW103 0.26168	180118G2_36	Analyte	10	4.32	9711.13	9600.221	101.16
37 1800043-12 REEPDW104 0.27166	180118G2_37	Analyte	10	4.31	8977.039	9600.221	93.51
38 1800043-13 REEPDW105 0.26297	180118G2_38	Analyte	10	4.32	9082.643	9600.221	94.61
39 1800043-14 REEPDW106 0.26776	180118G2_39	Analyte	10	4.32	9151.533	9600.221	95.33
40 IPA	180118G2_40	Analyte	10			9600.221	
41 ST180118G2-3 PFC CS4 537 18A1208	180118G2_41	Standard	10	4.32	9041.63	9600.221	94.18

CCAL 3

Compound 18: 13C2-PFOA

ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA	
41	ST180118G2-3 PFC CS4 537 18A1208	180118G2_41	Standard	10	4.32	9041.63	9041.63	100.00
43	1800080-01 CH-AT-2RW58-0118 0.250	180118G2_43	Analyte	10	4.32	9515.88	9041.63	105.25
44	1800080-02 CH-AT-2FB58-0118 0.2501	180118G2_44	Analyte	10	4.31	9092.011	9041.63	100.56
45	1800080-03 CH-AT-2RW58B-0118 0.24	180118G2_45	Analyte	10	4.31	10295.49	9041.63	113.87
46	1800080-04 CH-AT-2FB58B-0118 0.251	180118G2_46	Analyte	10	4.31	9064.319	9041.63	100.25
47	1800080-05 CH-AT-2RW58C-0118 0.25	180118G2_47	Analyte	10	4.31	8751.378	9041.63	96.79
48	1800080-06 CH-AT-2FB58C-0118 0.24	180118G2_48	Analyte	10	4.32	8768.734	9041.63	96.98
49	1800080-07 CH-AT-1RW146-0118 0.24	180118G2_49	Analyte	10	4.32	8632.391	9041.63	95.47
50	1800080-08 CH-AT-1FB146-0118 0.24	180118G2_50	Analyte	10	4.31	9084.429	9041.63	100.47
51	1800085-01 IR54-PSW-VL101-17D 0.2	180118G2_51	Analyte	10	4.31	8528.555	9041.63	94.33
52	1800085-02 IR54-PSW-VL101D-17D 0.	180118G2_52	Analyte	10	4.32	8768.658	9041.63	96.98
53	1800085-03 IR54-PSW-FB-17D 0.2510	180118G2_53	Analyte	10	4.31	8111.066	9041.63	89.71
54	1800016-04 REEPDW087 0.26892	180118G2_54	Analyte	10	4.32	9894.182	9041.63	109.43
55	IPA	180118G2_55	Analyte	10			9041.63	0.00
56	ST18011G2-4 PFC CS2 537 18A1206	180118G2_56	Standard	10	4.32	10403.85	9041.63	115.07

CCAL 1

Compound 19: 13C4-PFOS

ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA	
1	IPA	180118G2_1	Analyte	28.7				
2	ST18018G2-1 PFC CS-1 537 18A1203	180118G2_2	Analyte	28.7	4.72	12442.6	12442.6	100.00
3	IPA	180118G2_3	Analyte	28.7			12442.6	0.00
4	1800007-06 REEPDW084 0.25931	180118G2_4	Analyte	28.7	4.73	10647.31	12442.6	85.57
5	1800009-01 REEPDW078FRB 0.26054	180118G2_5	Analyte	28.7	4.72	13771.77	12442.6	110.68
6	1800007-05 @5XREEPDW082 0.25581	180118G2_6	Analyte	28.7	4.72	2182.178	12442.6	17.54
7	1800007-07 @5X REEPDW083 0.2548	180118G2_7	Analyte	28.7	4.72	2505.163	12442.6	20.13
8	1800016-03 @5X REEPDW086 0.25471	180118G2_8	Analyte	28.7	4.72	4936.765	12442.6	39.68
9	1800016-03 REEPDW086 0.25471	180118G2_9	Analyte	28.7	4.72	18592.65	12442.6	149.43
10	IPA	180118G2_10	Analyte	28.7			12442.6	0
11	B8A0066-BLK1 LRB 0.25	180118G2_11	Analyte		4.72	9378.711	12442.6	75.38

12	B8A0083-BLK1 LRB 0.25	180118G2_12	Analyte	4.72	9799.598	12442.6	78.76
13	B8A0089-BLK1 LRB 0.25	180118G2_13	Analyte	4.72	10526.9	12442.6	84.60
14	B8A0066-BS1 LFB 0.25	180118G2_14	Analyte	4.72	10108.33	12442.6	81.24
15	B8A0066-MS1 LFSM 0.27048	180118G2_15	Analyte	4.72	10482.22	12442.6	84.24
16	B8A0066-MSD1 LFSMD 0.26633	180118G2_16	Analyte	4.72	9779.064	12442.6	78.59
17	B8A0083-BS1 LFB 0.25	180118G2_17	Analyte	4.72	9102.559	12442.6	73.16
18	B8A0083-MS1 LFSM 0.24055	180118G2_18	Analyte	4.72	10099.21	12442.6	81.17
19	B8A0083-MSD1 LFSMD 0.2463	180118G2_19	Analyte	4.73	9550.013	12442.6	76.75
20	B8A0089-BS1 LFB 0.25	180118G2_20	Analyte	4.72	8610.556	12442.6	69.20
21	B8A0089-MS1 LFSM 0.24449	180118G2_21	Analyte	4.73	9695.756	12442.6	77.92
22	B8A0089-MSD1 LFSMD 0.24187	180118G2_22	Analyte	4.72	8860.526	12442.6	71.21
23	1800043-01 REEPDW094 0.27915	180118G2_23	Analyte	4.72	11277.63	12442.6	90.64
24	1800043-02 REEPDW095 0.27047	180118G2_24	Analyte	4.73	10702.65	12442.6	86.02
25	1800043-03 REEPDW096 0.28406	180118G2_25	Analyte	4.72	10603.99	12442.6	85.22
26	1800043-04 REEPDW097 0.26571	180118G2_26	Analyte	4.73	10651.17	12442.6	85.60
27	IPA	180118G2_27	Analyte	28.7		12442.6	0.00
28	ST180118G2-2 PFC CS2 537 18A1206	180118G2_28	Standard	28.7	4.72 10796.66	12442.6	86.77

CCAL 2

Compound 19: 13C4-PFOS

ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
Compound 19: 13C4-PFOS							
29	IPA	180118G2_29	Analyte				
28	ST180118G2-2 PFC CS2 537 18A1206	180118G2_28	Standard	28.7	4.72 10796.66	10796.66	100.00
30	1800043-05 REEPDW098 0.27228	180118G2_30	Analyte		4.72 10369.46	10796.66	96.04
31	1800043-06 REEPDW099 0.26823	180118G2_31	Analyte		4.72 10226.41	10796.66	94.72
32	1800043-07 REEPDW100 0.28558	180118G2_32	Analyte		4.72 9237.149	10796.66	85.56
33	1800043-08 REEPDW509 0.27456	180118G2_33	Analyte		4.72 9863.241	10796.66	91.35
34	1800043-09 REEPDW101 0.28336	180118G2_34	Analyte		4.72 8393.599	10796.66	77.74
35	1800043-10 REEPDW102 0.26529	180118G2_35	Analyte		4.73 9853.316	10796.66	91.26
36	1800043-11 REEPDW103 0.26168	180118G2_36	Analyte		4.73 9983.317	10796.66	92.47
37	1800043-12 REEPDW104 0.27166	180118G2_37	Analyte		4.72 10193.21	10796.66	94.41
38	1800043-13 REEPDW105 0.26297	180118G2_38	Analyte		4.73 9576.133	10796.66	88.70
39	1800043-14 REEPDW106 0.26776	180118G2_39	Analyte		4.73 9837.97	10796.66	91.12

40 IPA	180118G2_40	Analyte	28.7				10796.66	0.00
41 ST180118G2-3 PFC CS4 537 18A1208	180118G2_41	Standard	28.7	4.72	9592.067		10796.66	88.84
42 IPA	180118G2_42	Analyte	28.7					

CCAL 3

Compound 19: 13C4-PFOS

41 ST180118G2-3 PFC CS4 537 18A1208	180118G2_41	Standard	28.7	4.72	9592.067		9592.067	100.00
43 1800080-01 CH-AT-2RW58-0118 0.250	180118G2_43	Analyte		4.73	10825.92		9592.067	112.86
44 1800080-02 CH-AT-2FB58-0118 0.2501	180118G2_44	Analyte		4.72	10483.76		9592.067	109.30
45 1800080-03 CH-AT-2RW58B-0118 0.24	180118G2_45	Analyte		4.72	11023.11		9592.067	114.92
46 1800080-04 CH-AT-2FB58B-0118 0.251	180118G2_46	Analyte		4.72	10127.07		9592.067	105.58
47 1800080-05 CH-AT-2RW58C-0118 0.25	180118G2_47	Analyte		4.72	10858.4		9592.067	113.20
48 1800080-06 CH-AT-2FB58C-0118 0.245	180118G2_48	Analyte		4.73	9844.716		9592.067	102.63
49 1800080-07 CH-AT-1RW146-0118 0.24	180118G2_49	Analyte		4.72	9780.863		9592.067	101.97
50 1800080-08 CH-AT-1FB146-0118 0.244	180118G2_50	Analyte		4.72	9202.914		9592.067	95.94
51 1800085-01 IR54-PSW-VL101-17D 0.24	180118G2_51	Analyte		4.73	8751.128		9592.067	91.23
52 1800085-02 IR54-PSW-VL101D-17D 0.1	180118G2_52	Analyte		4.73	9279.875		9592.067	96.75
53 1800085-03 IR54-PSW-FB-17D 0.25105	180118G2_53	Analyte		4.72	8745.02		9592.067	91.17
54 1800016-04 REEPDW087 0.26892	180118G2_54	Analyte	28.7	4.73	11351.55		9592.067	118.34
55 IPA	180118G2_55	Analyte	28.7				9592.067	0.00
56 ST18011G2-4 PFC CS2 537 18A1206	180118G2_56	Standard	28.7	4.73	10601.19		9592.067	110.52

CCAL 1

Compound 20: d3-N-MeFOSAA

ID	Name	Type	Std. Conc	RT	Area	CCAL AREA	% AREA
1 IPA	180118G2_1	Analyte	40				
2 ST18018G2-1 PFC CS-1 537 18A1203	180118G2_2	Analyte	40	5.08	7111.229	7111.229	100.00
3 IPA	180118G2_3	Analyte	40			7111.229	0.00
4 1800007-06 REEPDW084 0.25931	180118G2_4	Analyte	40	5.08	6589.457	7111.229	92.66
5 1800009-01 REEPDW078FRB 0.26054	180118G2_5	Analyte	40	5.08	7758.009	7111.229	109.10
6 1800007-05 @5XREEPDW082 0.25581	180118G2_6	Analyte	40	5.08	1068.297	7111.229	15.02
7 1800007-07 @5X REEPDW083 0.25486	180118G2_7	Analyte	40	5.08	1207.651	7111.229	16.98

8	1800016-03 @5X REEPDW086 0.25471	180118G2_8	Analyte	40	5.08	3557.493	7111.229	50.03
9	1800016-03 REEPDW086 0.25471	180118G2_9	Analyte	40	5.08	16816.49	7111.229	236.48
10	IPA	180118G2_10	Analyte	40			7111.229	0.00
11	B8A0066-BLK1 LRB 0.25	180118G2_11	Analyte	40	5.08	5705.455	7111.229	80.23
12	B8A0083-BLK1 LRB 0.25	180118G2_12	Analyte	40	5.08	5117.452	7111.229	71.96
13	B8A0089-BLK1 LRB 0.25	180118G2_13	Analyte	40	5.08	6271.847	7111.229	88.20
14	B8A0066-BS1 LFB 0.25	180118G2_14	Analyte	40	5.08	5327.652	7111.229	74.92
15	B8A0066-MS1 LFSM 0.27048	180118G2_15	Analyte	40	5.08	6020.557	7111.229	84.66
16	B8A0066-MSD1 LFSMD 0.26633	180118G2_16	Analyte	40	5.08	5473.931	7111.229	76.98
17	B8A0083-BS1 LFB 0.25	180118G2_17	Analyte	40	5.08	5523.66	7111.229	77.68
18	B8A0083-MS1 LFSM 0.24055	180118G2_18	Analyte	40	5.08	6091.664	7111.229	85.66
19	B8A0083-MSD1 LFSMD 0.2463	180118G2_19	Analyte	40	5.08	5465.365	7111.229	76.86
20	B8A0089-BS1 LFB 0.25	180118G2_20	Analyte	40	5.08	5411.224	7111.229	76.09
21	B8A0089-MS1 LFSM 0.24449	180118G2_21	Analyte	40	5.09	4936.071	7111.229	69.41
22	B8A0089-MSD1 LFSMD 0.24187	180118G2_22	Analyte	40	5.09	4939.387	7111.229	69.46
23	1800043-01 REEPDW094 0.27915	180118G2_23	Analyte	40	5.08	6401.689	7111.229	90.02
24	1800043-02 REEPDW095 0.27047	180118G2_24	Analyte	40	5.08	5817.382	7111.229	81.81
25	1800043-03 REEPDW096 0.28406	180118G2_25	Analyte	40	5.08	5236.629	7111.229	73.64
26	1800043-04 REEPDW097 0.26571	180118G2_26	Analyte	40	5.08	6101.565	7111.229	85.80
27	IPA	180118G2_27	Analyte	40			7111.229	0.00
28	ST180118G2-2 PFC CS2 537 18A1206	180118G2_28	Standard	40	5.08	5140.72	7111.229	72.29
29	IPA	180118G2_29	Analyte	40			7111.229	0.00

CCAL 2

Compound 20: d3-N-MeFOSAA

28	ST180118G2-2 PFC CS2 537 18A1206	180118G2_28	Standard	40	5.08	5140.72	5140.72	100.00
30	1800043-05 REEPDW098 0.27228	180118G2_30	Analyte	40	5.08	5570.485	5140.72	108.36
31	1800043-06 REEPDW099 0.26823	180118G2_31	Analyte	40	5.08	5796.455	5140.72	112.76
32	1800043-07 REEPDW100 0.28558	180118G2_32	Analyte	40	5.08	6031.292	5140.72	117.32
33	1800043-08 REEPDW509 0.27456	180118G2_33	Analyte	40	5.08	6037.827	5140.72	117.45
34	1800043-09 REEPDW101 0.28336	180118G2_34	Analyte	40	5.08	6115.861	5140.72	118.97
35	1800043-10 REEPDW102 0.26529	180118G2_35	Analyte	40	5.08	5956.016	5140.72	115.86
36	1800043-11 REEPDW103 0.26168	180118G2_36	Analyte	40	5.08	5633.1	5140.72	109.58
37	1800043-12 REEPDW104 0.27166	180118G2_37	Analyte	40	5.08	5608.666	5140.72	109.10

38	1800043-13 REEPDW105 0.26297	180118G2_38	Analyte	40	5.08	6094.922	5140.72	118.56
39	1800043-14 REEPDW106 0.26776	180118G2_39	Analyte	40	5.09	5643.012	5140.72	109.77
40	IPA	180118G2_40	Analyte	40			5140.72	0.00
41	ST180118G2-3 PFC CS4 537 18A1208	180118G2_41	Standard	40	5.09	6271.517	5140.72	122.00
42	IPA	180118G2_42	Analyte	40			4828.68	0.00

CCAL 2

Compound 20: d3-N-MeFOSAA

41	ST180118G2-3 PFC CS4 537 18A1208	180118G2_41	Standard	40	5.09	6271.517	6271.517	100.00
43	1800080-01 CH-AT-2RW58-0118 0.250	180118G2_43	Analyte	40	5.09	5780.859	6271.517	92.18
44	1800080-02 CH-AT-2FB58-0118 0.2501	180118G2_44	Analyte	40	5.08	5565.08	6271.517	88.74
45	1800080-03 CH-AT-2RW58B-0118 0.24	180118G2_45	Analyte	40	5.08	6432.375	6271.517	102.56
46	1800080-04 CH-AT-2FB58B-0118 0.251	180118G2_46	Analyte	40	5.08	5907.788	6271.517	94.20
47	1800080-05 CH-AT-2RW58C-0118 0.25	180118G2_47	Analyte	40	5.08	5391.522	6271.517	85.97
48	1800080-06 CH-AT-2FB58C-0118 0.245	180118G2_48	Analyte	40	5.08	6106.041	6271.517	97.36
49	1800080-07 CH-AT-1RW146-0118 0.24	180118G2_49	Analyte	40	5.09	5788.126	6271.517	92.29
50	1800080-08 CH-AT-1FB146-0118 0.244	180118G2_50	Analyte	40	5.08	5821.937	6271.517	92.83
51	1800085-01 IR54-PSW-VL101-17D 0.24	180118G2_51	Analyte	40	5.08	5037.459	6271.517	80.32
52	1800085-02 IR54-PSW-VL101D-17D 0.24	180118G2_52	Analyte	40	5.08	5083.775	6271.517	81.06
53	1800085-03 IR54-PSW-FB-17D 0.25105	180118G2_53	Analyte	40	5.08	5081.091	6271.517	81.02
54	1800016-04 REEPDW087 0.26892	180118G2_54	Analyte	40	5.08	5592.342	6271.517	89.17
55	IPA	180118G2_55	Analyte	40			6271.517	0.00
56	ST18011G2-4 PFC CS2 537 18A1206	180118G2_56	Standard	40	5.09	5232.268	6271.517	83.43

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Dataset:U:\Q1.PRO\Results\2018\180118G2\180118G2__2.qld

Last Altered:Friday, January 19, 2018 13:47:18 Pacific Standard Time

Printed:Friday, January 19, 2018 13:48:15 Pacific Standard Time

Rev'd: AMH 01/22/2018

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 11 Jan 2018 11:50:37
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

ST180118G2-1
Name: 180118G2_2, Date: 18-Jan-2018, Time: 15:48:16, ID: ST180118G2-1 PFC CS-1 537 18A1203, Description: PFC CS-1 537 18A1203

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	5.28e2	1.24e4	1.0000		3.02	3.01	1.22	1.474	83.3
2	2 PFHxA	313.2 > 268.9	5.69e2	1.02e4	1.0000		3.37	3.37	0.559	2.241	112.1
3	3 PFHpA	363 > 318.9	1.81e3	1.02e4	1.0000		3.88	3.89	1.77	2.021	101.0
4	4 PFHxS	398.9 > 79.6	7.35e2	1.24e4	1.0000		4.01	4.02	1.70	1.834	100.8
5	5 PFOA	413 > 368.7	1.81e3	1.02e4	1.0000		4.32	4.31	1.78	2.273	113.6
6	6 PFNA	463 > 418.8	1.72e3	1.02e4	1.0000		4.66	4.66	1.68	2.061	103.0
7	7 PFOS	499 > 79.9	9.27e2	1.24e4	1.0000		4.72	4.72	2.14	1.882	101.7
8	8 PFDA	513 > 468.8	1.74e3	1.02e4	1.0000		4.89	4.96	1.71	2.252	112.6
9	9 N-MeFOSAA	570.1 > 419.0	7.09e2	7.11e3	1.0000		5.02	5.09	3.99	1.930	96.5
10	10 N-EtFOSAA	584.2 > 419.0	5.18e2	7.11e3	1.0000		5.20	5.21	2.91	2.018	100.9
11	11 PFUnA	563 > 518.9	1.67e3	1.02e4	1.0000		5.15	5.22	1.64	2.150	107.5
12	12 PFDoA	612.9 > 318.8	4.05e2	1.02e4	1.0000		5.35	5.44	0.398	2.608	130.4
13	13 PFTTrDA	662.9 > 618.9	2.57e3	1.02e4	1.0000		5.58	5.64	2.52	2.120	106.0
14	14 PFTeDA	712.9 > 668.8	2.36e3	1.02e4	1.0000		5.75	5.80	2.32	2.042	102.1
15	15 13C2-PFHxA	315 > 269.8	4.63e3	1.02e4	1.0000	0.517	3.46	3.37	4.55	8.797	88.0
16	16 13C2-PFDA	515.1 > 469.9	5.98e3	1.02e4	1.0000	0.543	4.92	4.96	5.87	10.827	108.3
17	17 d5-N-EtFOSAA	589.3 > 419.0	7.71e3	7.11e3	1.0000	1.102	5.08	5.21	43.4	39.361	98.4
18	18 13C2-PFOA	414.9 > 369.7	1.02e4	1.02e4	1.0000	1.000	4.41	4.32	10.0	10.000	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.24e4	1.24e4	1.0000	1.000	4.81	4.72	28.7	28.700	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	7.11e3	7.11e3	1.0000	1.000	5.16	5.08	40.0	40.000	100.0

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2_IIS_AREA.qld

Last Altered: Friday, January 19, 2018 10:22:48 Pacific Standard Time
Printed: Friday, January 19, 2018 10:38:59 Pacific Standard Time

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 11 Jan 2018 11:50:37
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	180118G2_1	IPA 18G2-1	18-Jan-18	15:35:50
2	180118G2_2	ST180118G2-1 PFC CS-1 537 18A1203	18-Jan-18	15:48:16
3	180118G2_3	IPA	18-Jan-18	16:00:40
4	180118G2_4	1800007-06 REEPDW084 0.25931	18-Jan-18	16:13:07
5	180118G2_5	1800009-01 REEPDW078FRB 0.26054	18-Jan-18	16:25:30
6	180118G2_6	1800007-05 @5XREEPDW082 0.25581	18-Jan-18	16:37:55
7	180118G2_7	1800007-07 @5X REEPDW083 0.25486	18-Jan-18	16:50:20
8	180118G2_8	1800016-03 @5X REEPDW086 0.25471	18-Jan-18	17:02:46
9	180118G2_9	1800016-03 REEPDW086 0.25471	18-Jan-18	17:15:11
10	180118G2_10	IPA	18-Jan-18	17:27:38
11	180118G2_11	B8A0066-BLK1 LRB 0.25	18-Jan-18	17:40:05
12	180118G2_12	B8A0083-BLK1 LRB 0.25	18-Jan-18	17:52:33
13	180118G2_13	B8A0089-BLK1 LRB 0.25	18-Jan-18	18:04:56
14	180118G2_14	B8A0066-BS1 LFB 0.25	18-Jan-18	18:17:19
15	180118G2_15	B8A0066-MS1 LFSM 0.27048	18-Jan-18	18:29:44
16	180118G2_16	B8A0066-MSD1 LFSMD 0.26633	18-Jan-18	18:42:09
17	180118G2_17	B8A0083-BS1 LFB 0.25	18-Jan-18	18:54:34
18	180118G2_18	B8A0083-MS1 LFSM 0.24055	18-Jan-18	19:07:00
19	180118G2_19	B8A0083-MSD1 LFSMD 0.2463	18-Jan-18	19:19:27
20	180118G2_20	B8A0089-BS1 LFB 0.25	18-Jan-18	19:31:54
21	180118G2_21	B8A0089-MS1 LFSM 0.24449	18-Jan-18	19:44:17
22	180118G2_22	B8A0089-MSD1 LFSMD 0.24187	18-Jan-18	19:56:41
23	180118G2_23	1800043-01 REEPDW094 0.27915	18-Jan-18	20:09:06
24	180118G2_24	1800043-02 REEPDW095 0.27047	18-Jan-18	20:21:30
25	180118G2_25	1800043-03 REEPDW096 0.28406	18-Jan-18	20:33:56
26	180118G2_26	1800043-04 REEPDW097 0.26571	18-Jan-18	20:46:21
27	180118G2_27	IPA	18-Jan-18	20:58:49
28	180118G2_28	ST180118G2-2 PFC CS2 537 18A1206	18-Jan-18	21:11:16
29	180118G2_29	IPA	18-Jan-18	21:23:41
30	180118G2_30	1800043-05 REEPDW098 0.27228	18-Jan-18	21:36:09
31	180118G2_31	1800043-06 REEPDW099 0.26823	18-Jan-18	21:48:35
32	180118G2_32	1800043-07 REEPDW100 0.28558	18-Jan-18	22:00:59

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2_IIS_AREA.qld

Last Altered: Friday, January 19, 2018 10:22:48 Pacific Standard Time
Printed: Friday, January 19, 2018 10:38:59 Pacific Standard Time

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
33	180118G2_33	1800043-08 REEPDW509 0.27456	18-Jan-18	22:13:23
34	180118G2_34	1800043-09 REEPDW101 0.28336	18-Jan-18	22:25:48
35	180118G2_35	1800043-10 REEPDW102 0.26529	18-Jan-18	22:38:13
36	180118G2_36	1800043-11 REEPDW103 0.26168	18-Jan-18	22:50:38
37	180118G2_37	1800043-12 REEPDW104 0.27166	18-Jan-18	23:03:04
38	180118G2_38	1800043-13 REEPDW105 0.26297	18-Jan-18	23:15:31
39	180118G2_39	1800043-14 REEPDW106 0.26776	18-Jan-18	23:27:57
40	180118G2_40	IPA	18-Jan-18	23:40:20
41	180118G2_41	ST180118G2-3 PFC CS4 537 18A1208	18-Jan-18	23:52:47
42	180118G2_42	IPA	19-Jan-18	00:05:14
43	180118G2_43	1800080-01 CH-AT-2RW58-0118 0.25076	19-Jan-18	00:17:41
44	180118G2_44	1800080-02 CH-AT-2FB58-0118 0.25017	19-Jan-18	00:30:06
45	180118G2_45	1800080-03 CH-AT-2RW58B-0118 0.24657	19-Jan-18	00:42:30
46	180118G2_46	1800080-04 CH-AT-2FB58B-0118 0.25157	19-Jan-18	00:54:55
47	180118G2_47	1800080-05 CH-AT-2RW58C-0118 0.25535	19-Jan-18	01:07:19
48	180118G2_48	1800080-06 CH-AT-2FB58C-0118 0.24979	19-Jan-18	01:19:45
49	180118G2_49	1800080-07 CH-AT-1RW146-0118 0.24276	19-Jan-18	01:32:13
50	180118G2_50	1800080-08 CH-AT-1FB146-0118 0.24492	19-Jan-18	01:44:40
51	180118G2_51	1800085-01 IR54-PSW-VL101-17D 0.24531	19-Jan-18	01:57:03
52	180118G2_52	1800085-02 IR54-PSW-VL101D-17D 0.24722	19-Jan-18	02:09:26
53	180118G2_53	1800085-03 IR54-PSW-FB-17D 0.25105	19-Jan-18	02:21:49
54	180118G2_54	1800016-04 REEPDW087 0.26892	19-Jan-18	02:34:13
55	180118G2_55	IPA 18G2	19-Jan-18	02:46:39
56	180118G2_56	ST18011G2-4 PFC CS2 537 18A1206	19-Jan-18	02:59:06

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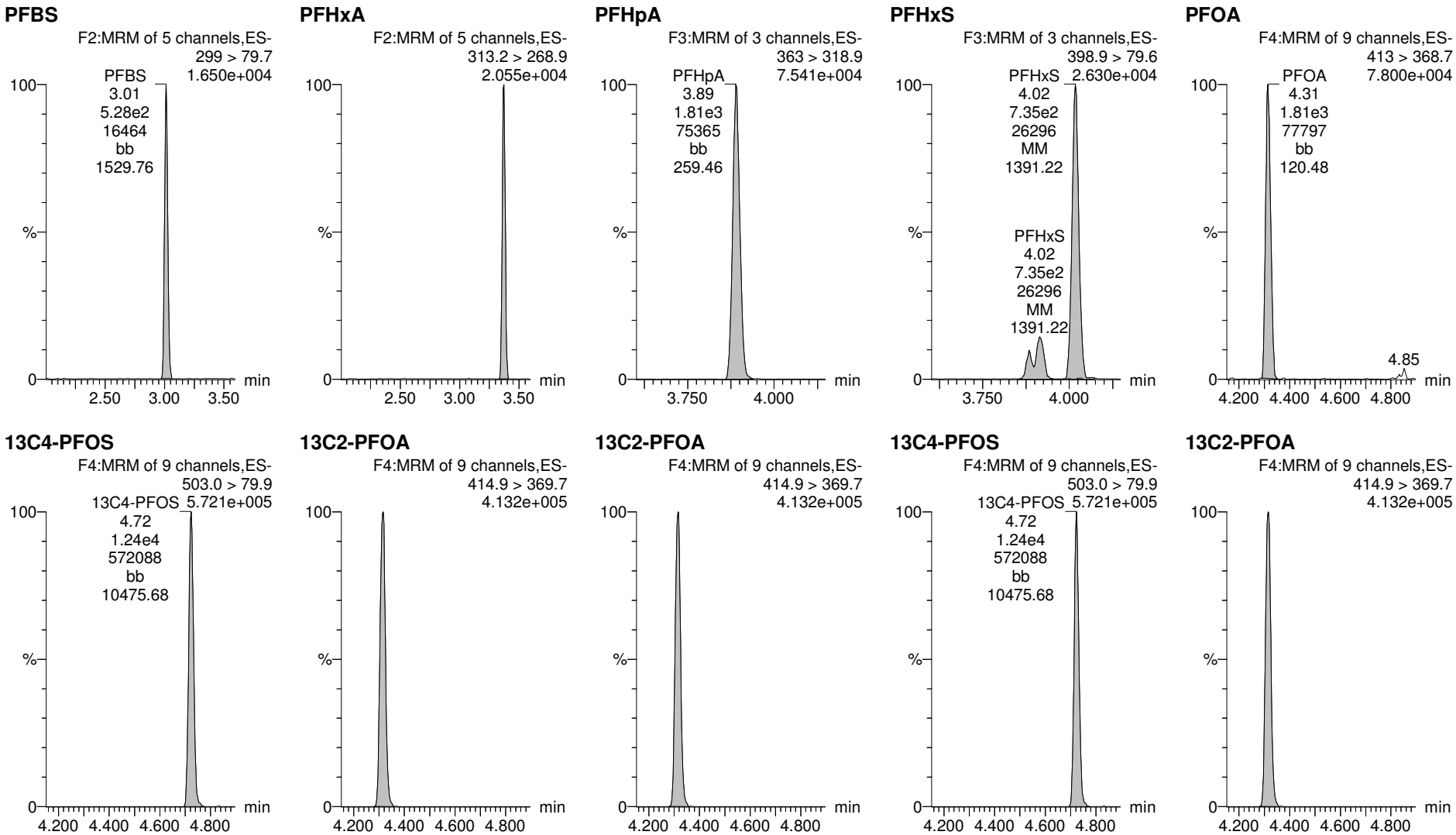
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Last Altered: Friday, January 19, 2018 13:47:18 Pacific Standard Time

Printed: Friday, January 19, 2018 13:48:15 Pacific Standard Time

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Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180118G2_2, Date: 18-Jan-2018, Time: 15:48:16, ID: ST18018G2-1 PFC CS-1 537 18A1203, Description: PFC CS-1 537 18A1203



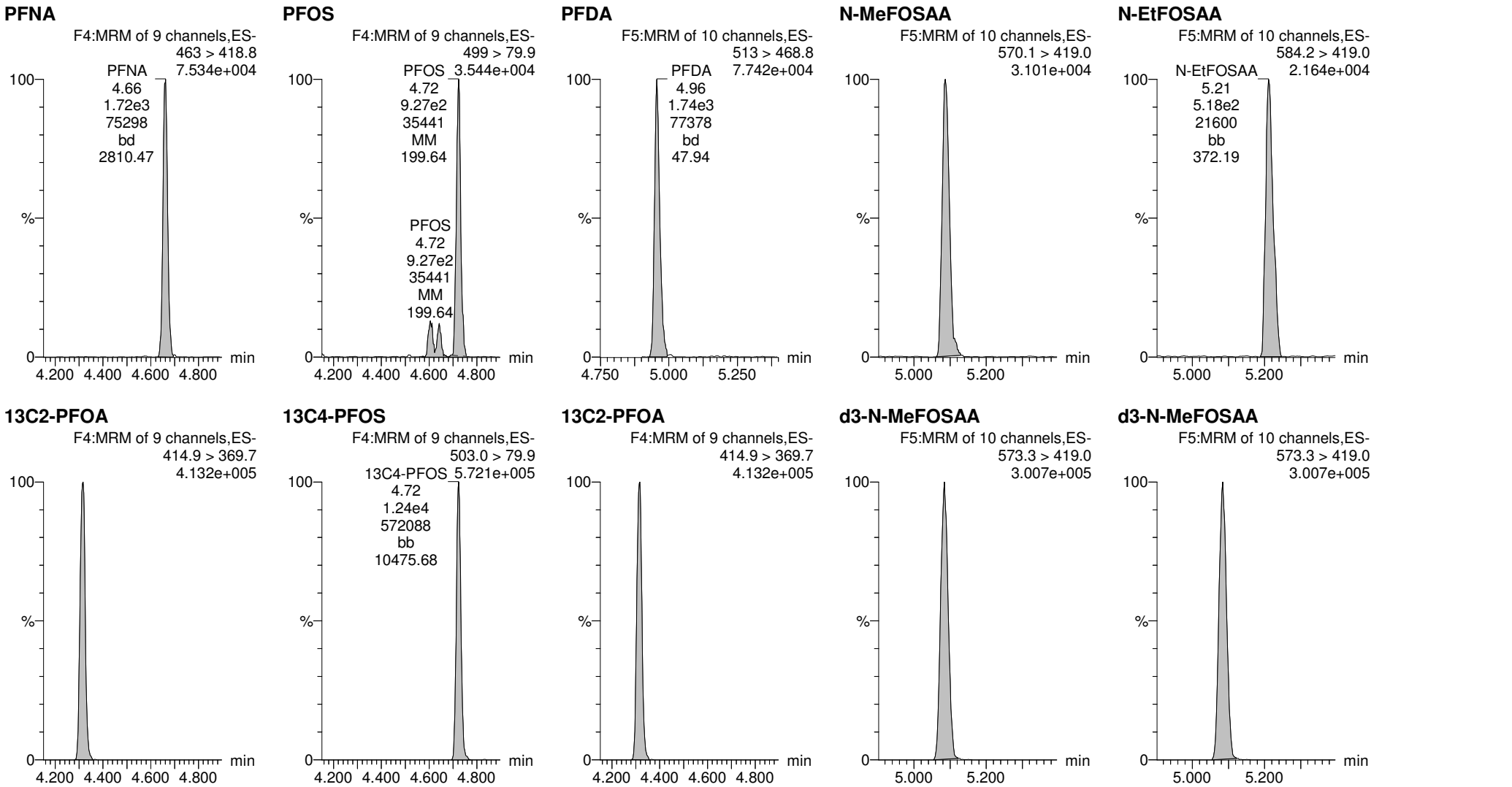
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Last Altered: Friday, January 19, 2018 13:47:18 Pacific Standard Time

Printed: Friday, January 19, 2018 13:48:15 Pacific Standard Time

Name: 180118G2_2, Date: 18-Jan-2018, Time: 15:48:16, ID: ST180118G2-1 PFC CS-1 537 18A1203, Description: PFC CS-1 537 18A1203



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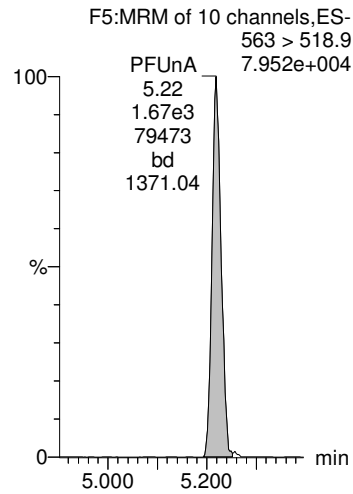
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Last Altered: Friday, January 19, 2018 13:47:18 Pacific Standard Time

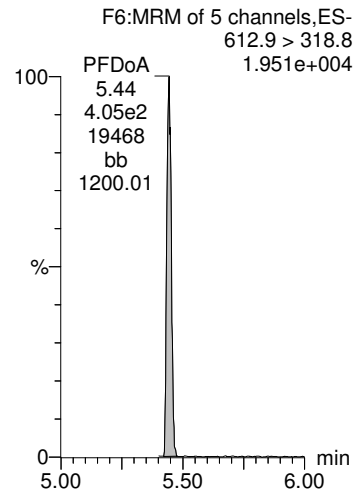
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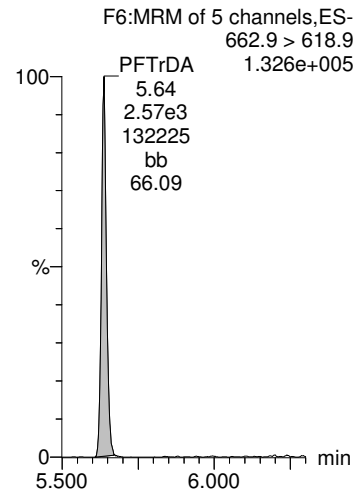
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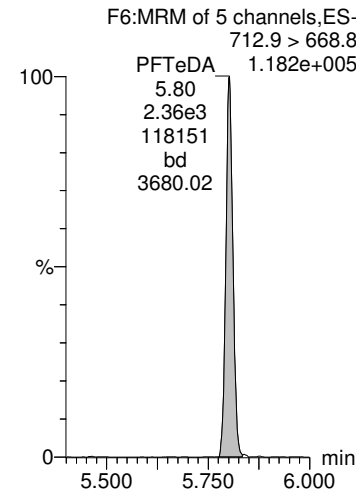
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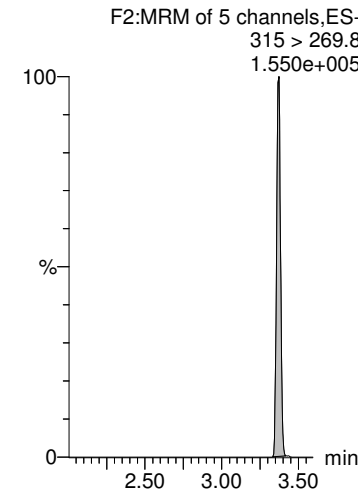
PFTTrDA



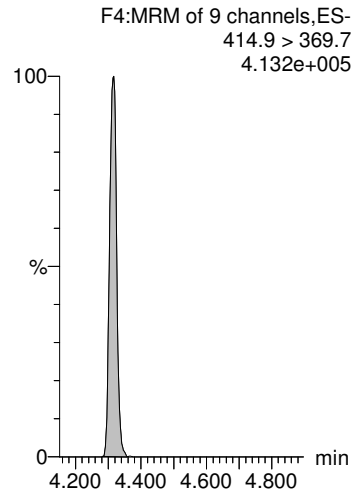
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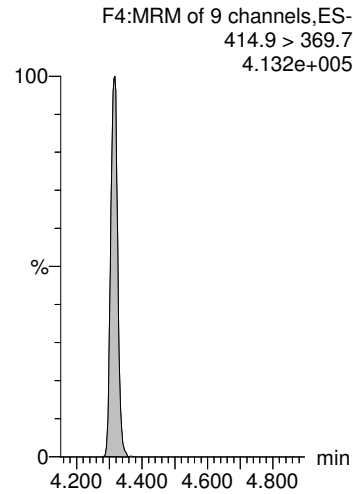
13C2-PFHxA



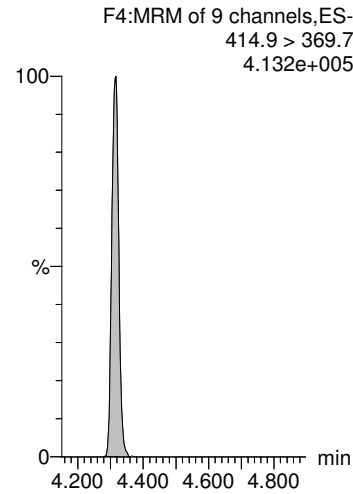
13C2-PFOA



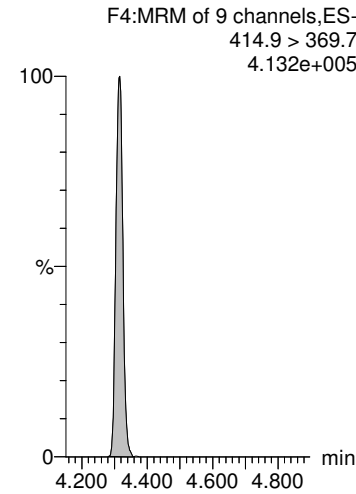
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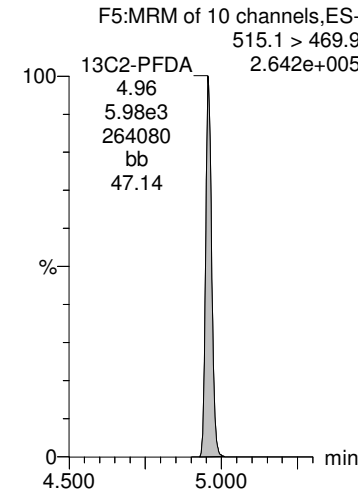
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13C2-PFOA



13C2-PFDA



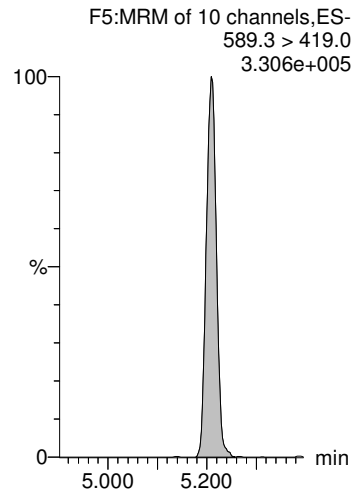
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Last Altered: Friday, January 19, 2018 13:47:18 Pacific Standard Time

Printed: Friday, January 19, 2018 13:48:15 Pacific Standard Time

Name: 180118G2_2, Date: 18-Jan-2018, Time: 15:48:16, ID: ST18018G2-1 PFC CS-1 537 18A1203, Description: PFC CS-1 537 18A1203

d5-N-EtFOSAA



Vista Analytical Laboratory

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__28.qld

Last Altered: Friday, January 19, 2018 13:51:19 Pacific Standard Time
Printed: Friday, January 19, 2018 13:51:34 Pacific Standard Time

Rev'd: AMH 01/22/2018

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 11 Jan 2018 11:50:37
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

*N-EtFOSAA @ 132.2
SAMPLES ARE ND FOR THIS COMPOUND

Name: 180118G2_28, Date: 18-Jan-2018, Time: 21:11:16, ID: ST180118G2-2 PFC CS2 537 18A1206, Description: PFC CS2 537 18A1206

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	6.05e3	1.08e4	1.0000		3.02	3.01	16.1	19.454	88.0
2	2 PFHxA	313.2 > 268.9	5.04e3	9.60e3	1.0000		3.37	3.37	5.25	21.109	84.4
3	3 PFHpA	363 > 318.9	1.94e4	9.60e3	1.0000		3.88	3.89	20.2	23.017	92.1
4	4 PFHxS	398.9 > 79.6	7.31e3	1.08e4	1.0000		4.01	4.02	19.4	21.001	92.1
5	5 PFOA	413 > 368.7	1.87e4	9.60e3	1.0000		4.31	4.31	19.5	24.963	99.9
6	6 PFNA	463 > 418.8	1.86e4	9.60e3	1.0000		4.66	4.66	19.3	23.662	94.6
7	7 PFOS	499 > 79.9	9.07e3	1.08e4	1.0000		4.72	4.73	24.1	21.203	91.8
8	8 PFDA	513 > 468.8	1.67e4	9.60e3	1.0000		4.88	4.96	17.4	23.567	94.3
9	9 N-MeFOSAA	570.1 > 419.0	7.95e3	5.14e3	1.0000		5.02	5.09	61.9	29.629	118.5
10	10 N-EtFOSAA	584.2 > 419.0	6.13e3	5.14e3	1.0000		5.20	5.21	47.7	33.049	132.2
11	11 PFUnA	563 > 518.9	1.69e4	9.60e3	1.0000		5.15	5.22	17.6	23.032	92.1
12	12 PFDoA	612.9 > 318.8	3.50e3	9.60e3	1.0000		5.35	5.44	3.65	23.929	95.7
13	13 PFTrDA	662.9 > 618.9	2.64e4	9.60e3	1.0000		5.57	5.64	27.5	23.128	92.5
14	14 PFTeDA	712.9 > 668.8	2.76e4	9.60e3	1.0000		5.74	5.80	28.8	25.400	101.6
15	15 13C2-PFHxA	315 > 269.8	4.56e3	9.60e3	1.0000	0.517	3.46	3.37	4.75	9.175	91.7
16	16 13C2-PFDA	515.1 > 469.9	5.23e3	9.60e3	1.0000	0.543	4.92	4.96	5.45	10.045	100.4
17	17 d5-N-EtFOSAA	589.3 > 419.0	6.65e3	5.14e3	1.0000	1.102	5.08	5.21	51.7	46.934	117.3
18	18 13C2-PFOA	414.9 > 369.7	9.60e3	9.60e3	1.0000	1.000	4.41	4.31	10.0	10.000	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.08e4	1.08e4	1.0000	1.000	4.81	4.72	28.7	28.700	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	5.14e3	5.14e3	1.0000	1.000	5.16	5.08	40.0	40.000	100.0

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2_IIS_AREA.qld

Last Altered: Friday, January 19, 2018 10:22:48 Pacific Standard Time
Printed: Friday, January 19, 2018 10:38:59 Pacific Standard Time

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 11 Jan 2018 11:50:37
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	180118G2_1	IPA	18-Jan-18	15:35:50
2	180118G2_2	ST180118G2-1 PFC CS-1 537 18A1203	18-Jan-18	15:48:16
3	180118G2_3	IPA	18-Jan-18	16:00:40
4	180118G2_4	1800007-06 REEPDW084 0.25931	18-Jan-18	16:13:07
5	180118G2_5	1800009-01 REEPDW078FRB 0.26054	18-Jan-18	16:25:30
6	180118G2_6	1800007-05 @5XREEPDW082 0.25581	18-Jan-18	16:37:55
7	180118G2_7	1800007-07 @5X REEPDW083 0.25486	18-Jan-18	16:50:20
8	180118G2_8	1800016-03 @5X REEPDW086 0.25471	18-Jan-18	17:02:46
9	180118G2_9	1800016-03 REEPDW086 0.25471	18-Jan-18	17:15:11
10	180118G2_10	IPA	18-Jan-18	17:27:38
11	180118G2_11	B8A0066-BLK1 LRB 0.25	18-Jan-18	17:40:05
12	180118G2_12	B8A0083-BLK1 LRB 0.25	18-Jan-18	17:52:33
13	180118G2_13	B8A0089-BLK1 LRB 0.25	18-Jan-18	18:04:56
14	180118G2_14	B8A0066-BS1 LFB 0.25	18-Jan-18	18:17:19
15	180118G2_15	B8A0066-MS1 LFSM 0.27048	18-Jan-18	18:29:44
16	180118G2_16	B8A0066-MSD1 LFSMD 0.26633	18-Jan-18	18:42:09
17	180118G2_17	B8A0083-BS1 LFB 0.25	18-Jan-18	18:54:34
18	180118G2_18	B8A0083-MS1 LFSM 0.24055	18-Jan-18	19:07:00
19	180118G2_19	B8A0083-MSD1 LFSMD 0.2463	18-Jan-18	19:19:27
20	180118G2_20	B8A0089-BS1 LFB 0.25	18-Jan-18	19:31:54
21	180118G2_21	B8A0089-MS1 LFSM 0.24449	18-Jan-18	19:44:17
22	180118G2_22	B8A0089-MSD1 LFSMD 0.24187	18-Jan-18	19:56:41
23	180118G2_23	1800043-01 REEPDW094 0.27915	18-Jan-18	20:09:06
24	180118G2_24	1800043-02 REEPDW095 0.27047	18-Jan-18	20:21:30
25	180118G2_25	1800043-03 REEPDW096 0.28406	18-Jan-18	20:33:56
26	180118G2_26	1800043-04 REEPDW097 0.26571	18-Jan-18	20:46:21
27	180118G2_27	IPA	18-Jan-18	20:58:49
28	180118G2_28	ST180118G2-2 PFC CS2 537 18A1206	18-Jan-18	21:11:16
29	180118G2_29	IPA	18-Jan-18	21:23:41
30	180118G2_30	1800043-05 REEPDW098 0.27228	18-Jan-18	21:36:09
31	180118G2_31	1800043-06 REEPDW099 0.26823	18-Jan-18	21:48:35
32	180118G2_32	1800043-07 REEPDW100 0.28558	18-Jan-18	22:00:59

MJT1/19/2018

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2_IIS_AREA.qld

Last Altered: Friday, January 19, 2018 10:22:48 Pacific Standard Time
Printed: Friday, January 19, 2018 10:38:59 Pacific Standard Time

Compound name: PFBS

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34	180118G2_34	1800043-09 REEPDW101 0.28336	18-Jan-18	22:25:48
35	180118G2_35	1800043-10 REEPDW102 0.26529	18-Jan-18	22:38:13
36	180118G2_36	1800043-11 REEPDW103 0.26168	18-Jan-18	22:50:38
37	180118G2_37	1800043-12 REEPDW104 0.27166	18-Jan-18	23:03:04
38	180118G2_38	1800043-13 REEPDW105 0.26297	18-Jan-18	23:15:31
39	180118G2_39	1800043-14 REEPDW106 0.26776	18-Jan-18	23:27:57
40	180118G2_40	IPA	18-Jan-18	23:40:20
41	180118G2_41	ST180118G2-3 PFC CS4 537 18A1208	18-Jan-18	23:52:47
42	180118G2_42	IPA	19-Jan-18	00:05:14
43	180118G2_43	1800080-01 CH-AT-2RW58-0118 0.25076	19-Jan-18	00:17:41
44	180118G2_44	1800080-02 CH-AT-2FB58-0118 0.25017	19-Jan-18	00:30:06
45	180118G2_45	1800080-03 CH-AT-2RW58B-0118 0.24657	19-Jan-18	00:42:30
46	180118G2_46	1800080-04 CH-AT-2FB58B-0118 0.25157	19-Jan-18	00:54:55
47	180118G2_47	1800080-05 CH-AT-2RW58C-0118 0.25535	19-Jan-18	01:07:19
48	180118G2_48	1800080-06 CH-AT-2FB58C-0118 0.24979	19-Jan-18	01:19:45
49	180118G2_49	1800080-07 CH-AT-1RW146-0118 0.24276	19-Jan-18	01:32:13
50	180118G2_50	1800080-08 CH-AT-1FB146-0118 0.24492	19-Jan-18	01:44:40
51	180118G2_51	1800085-01 IR54-PSW-VL101-17D 0.24531	19-Jan-18	01:57:03
52	180118G2_52	1800085-02 IR54-PSW-VL101D-17D 0.24722	19-Jan-18	02:09:26
53	180118G2_53	1800085-03 IR54-PSW-FB-17D 0.25105	19-Jan-18	02:21:49
54	180118G2_54	1800016-04 REEPDW087 0.26892	19-Jan-18	02:34:13
55	180118G2_55	IPA 8	19-Jan-18	02:46:39
56	180118G2_56	ST18011G2-4 PFC CS2 537 18A1206	19-Jan-18	02:59:06

Vista Analytical Laboratory

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__28.qld

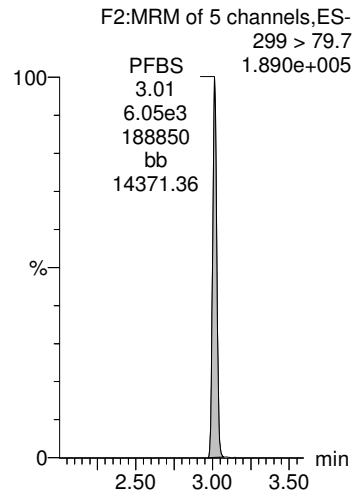
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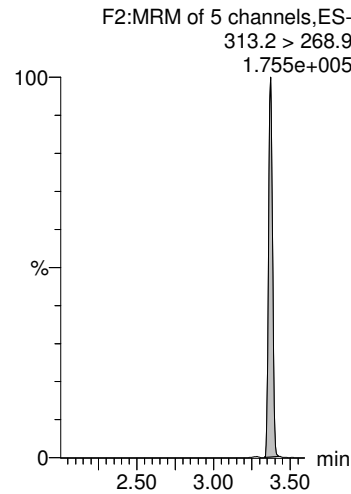
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Name: 180118G2_28, Date: 18-Jan-2018, Time: 21:11:16, ID: ST180118G2-2 PFC CS2 537 18A1206, Description: PFC CS2 537 18A1206

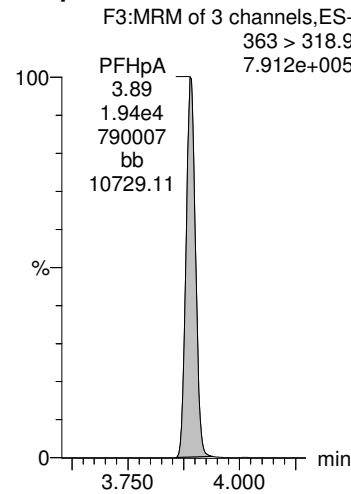
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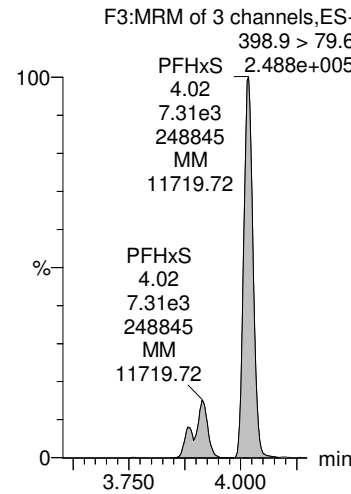
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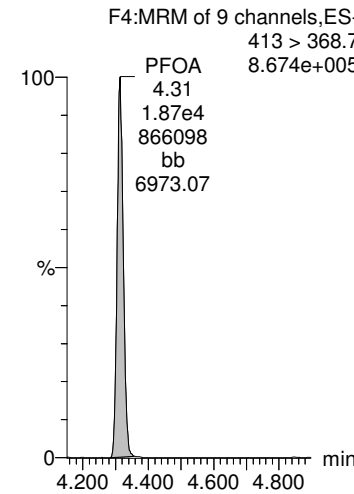
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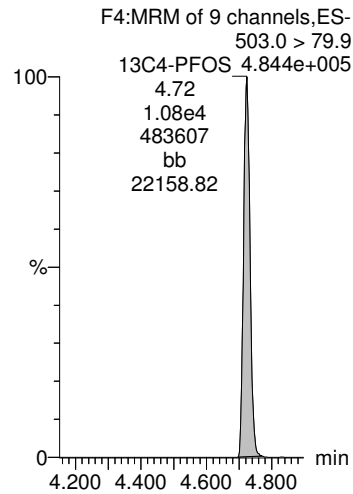
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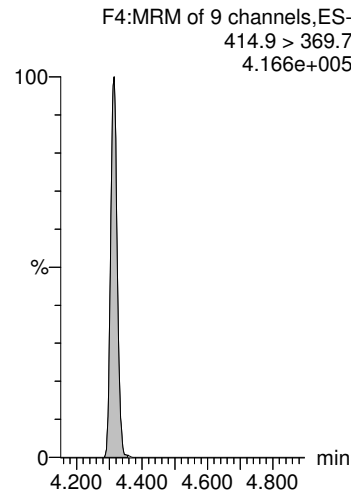
PFOA



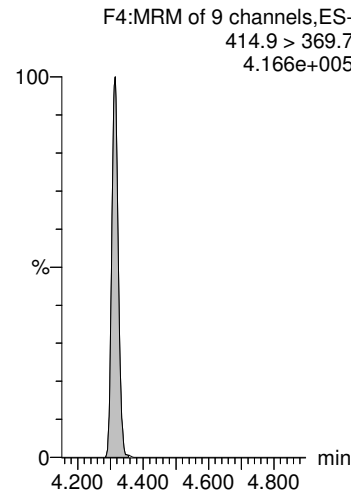
13C4-PFOS



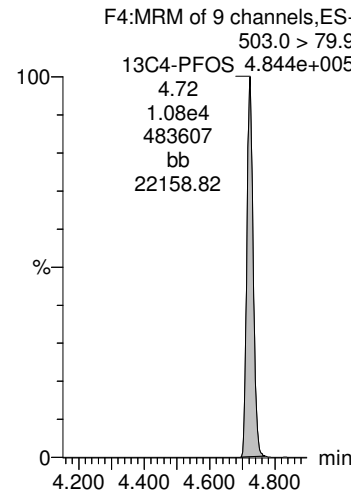
13C2-PFOA



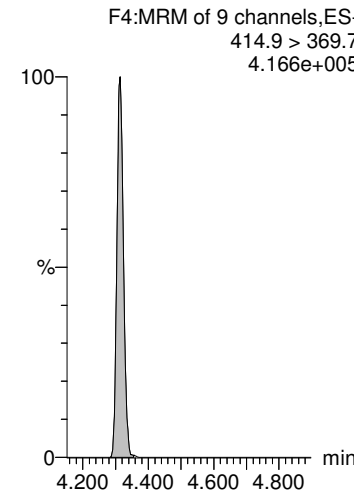
13C2-PFOA



13C4-PFOS



13C2-PFOA



Vista Analytical Laboratory

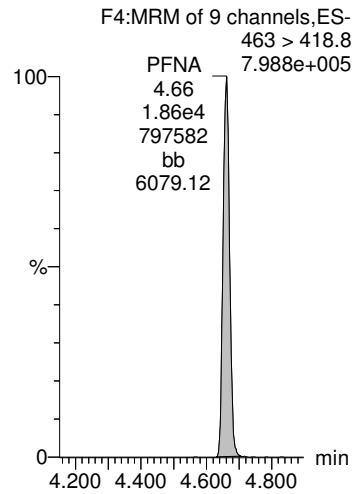
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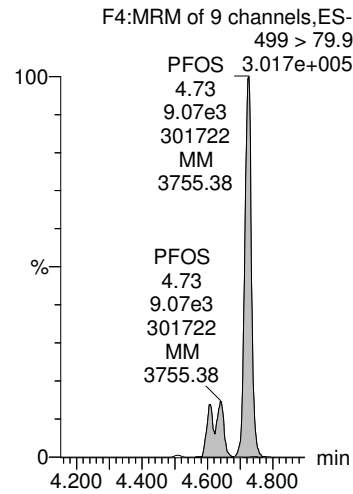
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Name: 180118G2_28, Date: 18-Jan-2018, Time: 21:11:16, ID: ST180118G2-2 PFC CS2 537 18A1206, Description: PFC CS2 537 18A1206

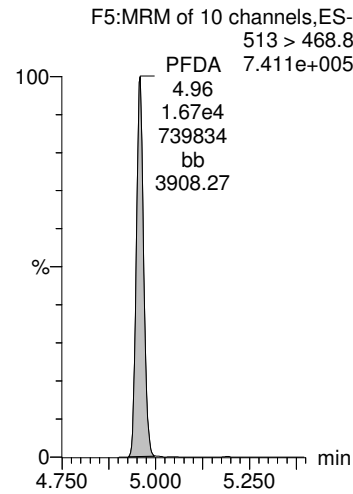
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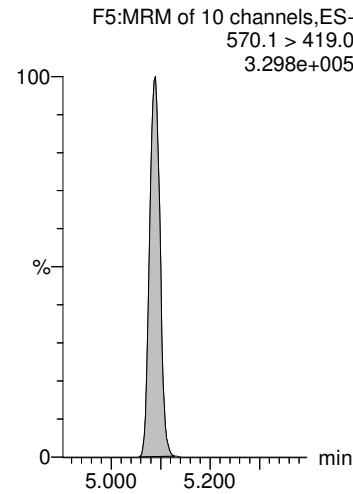
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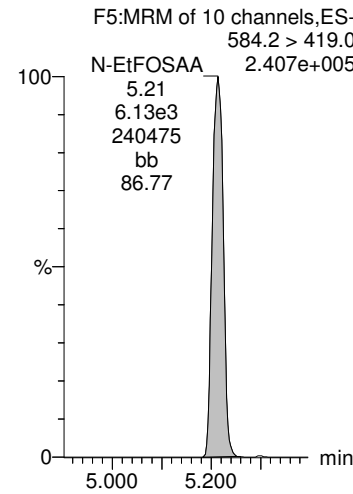
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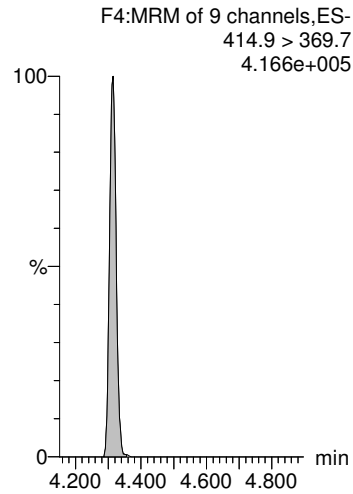
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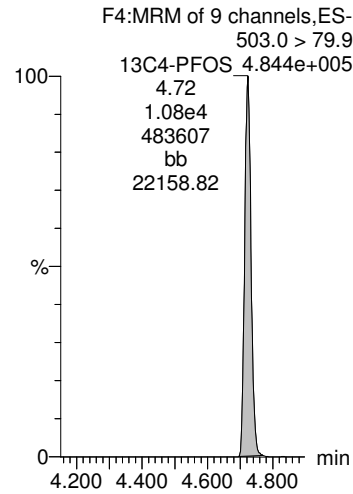
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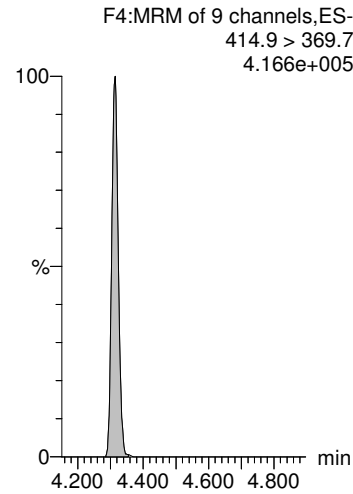
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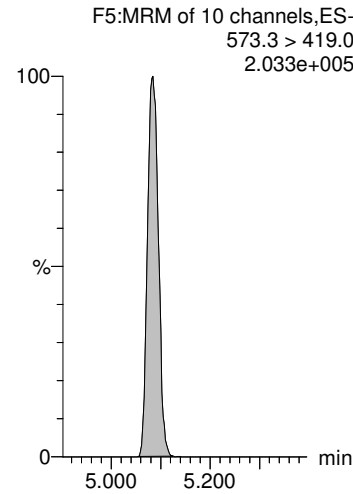
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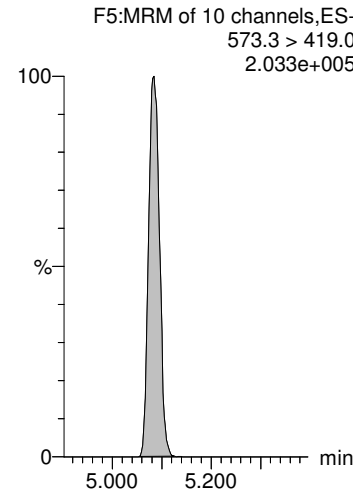
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



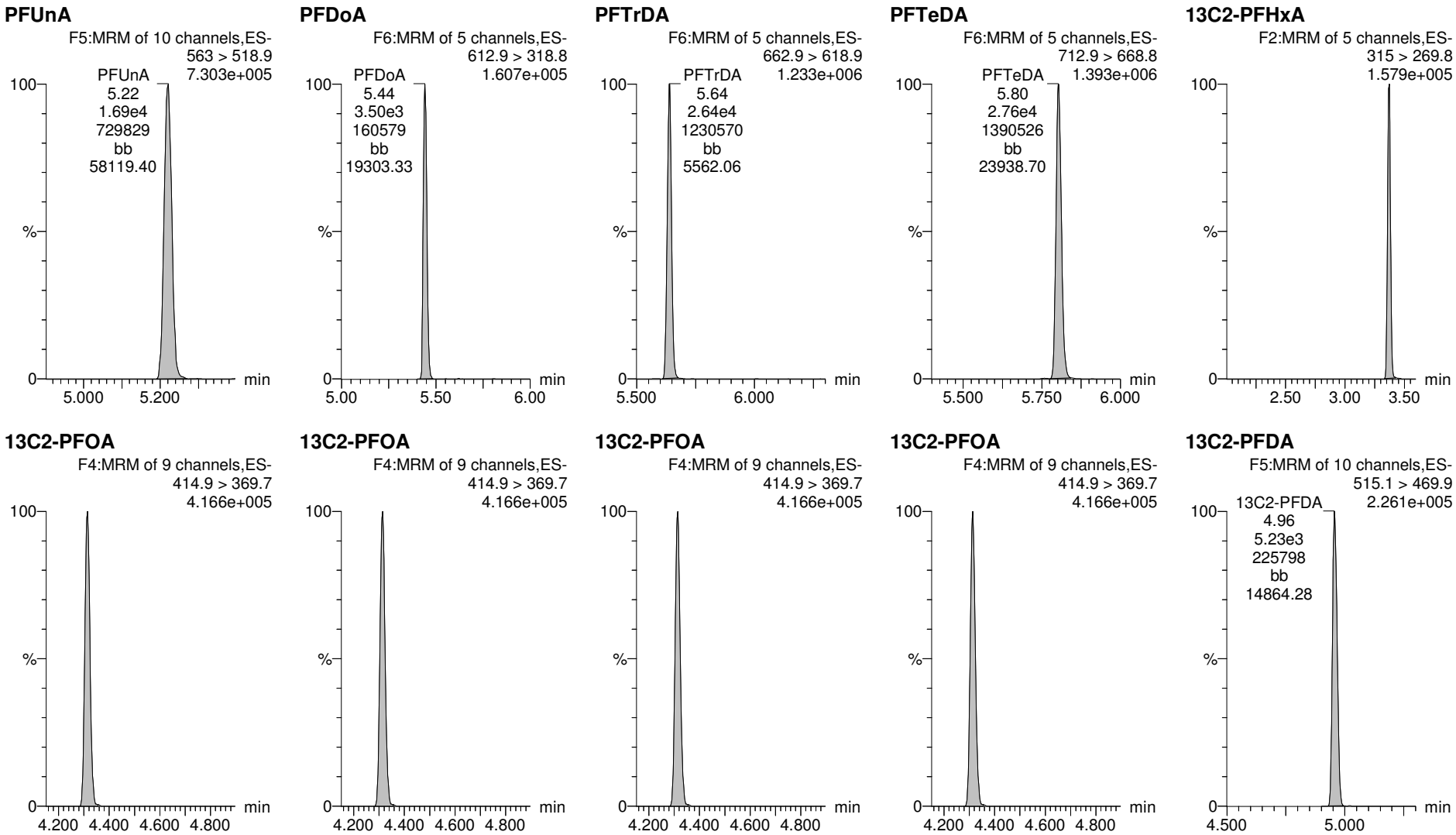
Vista Analytical Laboratory

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__28.qld

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Printed: Friday, January 19, 2018 13:51:34 Pacific Standard Time

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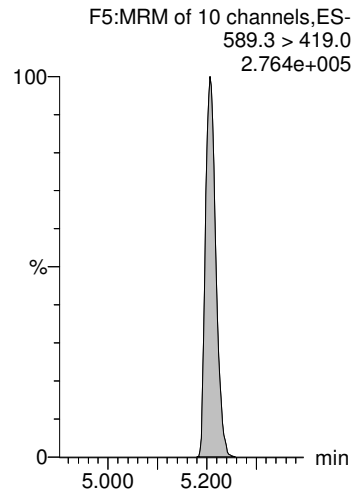
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Name: 180118G2_28, Date: 18-Jan-2018, Time: 21:11:16, ID: ST180118G2-2 PFC CS2 537 18A1206, Description: PFC CS2 537 18A1206

d5-N-EtFOSAA



Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__41.qld

Last Altered: Friday, January 19, 2018 13:55:03 Pacific Standard Time
Printed: Friday, January 19, 2018 13:55:19 Pacific Standard Time

Rev'd: AMH 01/22/2018

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 11 Jan 2018 11:50:37

Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180118G2_41, Date: 18-Jan-2018, Time: 23:52:47, ID: ST180118G2-3 PFC CS4 537 18A1208, Description: PFC CS4 537 18A1208

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1	1 PFBS	299 > 79.7	1.73e4	9.59e3	1.0000		3.02	3.01	51.8	62.715	94.6
2	2 PFHxA	313.2 > 268.9	1.45e4	9.04e3	1.0000		3.37	3.37	16.0	64.770	86.4
3	3 PFHpA	363 > 318.9	5.53e4	9.04e3	1.0000		3.88	3.89	61.2	69.668	92.9
4	4 PFHxS	398.9 > 79.6	2.10e4	9.59e3	1.0000		4.01	4.02	62.8	67.912	99.3
5	5 PFOA	413 > 368.7	5.32e4	9.04e3	1.0000		4.32	4.32	58.9	75.361	100.5
6	6 PFNA	463 > 418.8	5.55e4	9.04e3	1.0000		4.66	4.66	61.4	75.074	100.1
7	7 PFOS	499 > 79.9	2.60e4	9.59e3	1.0000		4.72	4.73	77.7	68.307	98.6
8	8 PFDA	513 > 468.8	4.53e4	9.04e3	1.0000		4.89	4.96	50.1	72.598	96.8
9	9 N-MeFOSAA	570.1 > 419.0	2.45e4	6.27e3	1.0000		5.03	5.09	156	73.621	98.2
10	10 N-EtFOSAA	584.2 > 419.0	1.62e4	6.27e3	1.0000		5.21	5.21	104	71.820	95.8
11	11 PFUnA	563 > 518.9	4.86e4	9.04e3	1.0000		5.15	5.22	53.7	70.381	93.8
12	12 PFDoA	612.9 > 318.8	1.05e4	9.04e3	1.0000		5.35	5.44	11.6	76.381	101.8
13	13 PFTTrDA	662.9 > 618.9	8.15e4	9.04e3	1.0000		5.58	5.64	90.1	75.816	101.1
14	14 PFTeDA	712.9 > 668.8	8.15e4	9.04e3	1.0000		5.75	5.80	90.1	79.499	106.0
15	15 13C2-PFHxA	315 > 269.8	4.05e3	9.04e3	1.0000	0.517	3.46	3.37	4.48	8.665	86.6
16	16 13C2-PFDA	515.1 > 469.9	4.70e3	9.04e3	1.0000	0.543	4.92	4.96	5.19	9.572	95.7
17	17 d5-N-EtFOSAA	589.3 > 419.0	5.47e3	6.27e3	1.0000	1.102	5.09	5.21	34.9	31.670	79.2
18	18 13C2-PFOA	414.9 > 369.7	9.04e3	9.04e3	1.0000	1.000	4.41	4.32	10.0	10.000	100.0
19	19 13C4-PFOS	503.0 > 79.9	9.59e3	9.59e3	1.0000	1.000	4.81	4.72	28.7	28.700	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	6.27e3	6.27e3	1.0000	1.000	5.16	5.09	40.0	40.000	100.0

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2_IIS_AREA.qld

Last Altered: Friday, January 19, 2018 10:22:48 Pacific Standard Time
Printed: Friday, January 19, 2018 10:38:59 Pacific Standard Time

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Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	180118G2_1	IPA	18-Jan-18	15:35:50
2	180118G2_2	ST180118G2-1 PFC CS-1 537 18A1203	18-Jan-18	15:48:16
3	180118G2_3	IPA	18-Jan-18	16:00:40
4	180118G2_4	1800007-06 REEPDW084 0.25931	18-Jan-18	16:13:07
5	180118G2_5	1800009-01 REEPDW078FRB 0.26054	18-Jan-18	16:25:30
6	180118G2_6	1800007-05 @5XREEPDW082 0.25581	18-Jan-18	16:37:55
7	180118G2_7	1800007-07 @5X REEPDW083 0.25486	18-Jan-18	16:50:20
8	180118G2_8	1800016-03 @5X REEPDW086 0.25471	18-Jan-18	17:02:46
9	180118G2_9	1800016-03 REEPDW086 0.25471	18-Jan-18	17:15:11
10	180118G2_10	IPA	18-Jan-18	17:27:38
11	180118G2_11	B8A0066-BLK1 LRB 0.25	18-Jan-18	17:40:05
12	180118G2_12	B8A0083-BLK1 LRB 0.25	18-Jan-18	17:52:33
13	180118G2_13	B8A0089-BLK1 LRB 0.25	18-Jan-18	18:04:56
14	180118G2_14	B8A0066-BS1 LFB 0.25	18-Jan-18	18:17:19
15	180118G2_15	B8A0066-MS1 LFSM 0.27048	18-Jan-18	18:29:44
16	180118G2_16	B8A0066-MSD1 LFSMD 0.26633	18-Jan-18	18:42:09
17	180118G2_17	B8A0083-BS1 LFB 0.25	18-Jan-18	18:54:34
18	180118G2_18	B8A0083-MS1 LFSM 0.24055	18-Jan-18	19:07:00
19	180118G2_19	B8A0083-MSD1 LFSMD 0.2463	18-Jan-18	19:19:27
20	180118G2_20	B8A0089-BS1 LFB 0.25	18-Jan-18	19:31:54
21	180118G2_21	B8A0089-MS1 LFSM 0.24449	18-Jan-18	19:44:17
22	180118G2_22	B8A0089-MSD1 LFSMD 0.24187	18-Jan-18	19:56:41
23	180118G2_23	1800043-01 REEPDW094 0.27915	18-Jan-18	20:09:06
24	180118G2_24	1800043-02 REEPDW095 0.27047	18-Jan-18	20:21:30
25	180118G2_25	1800043-03 REEPDW096 0.28406	18-Jan-18	20:33:56
26	180118G2_26	1800043-04 REEPDW097 0.26571	18-Jan-18	20:46:21
27	180118G2_27	IPA	18-Jan-18	20:58:49
28	180118G2_28	ST180118G2-2 PFC CS2 537 18A1206	18-Jan-18	21:11:16
29	180118G2_29	IPA	18-Jan-18	21:23:41
30	180118G2_30	1800043-05 REEPDW098 0.27228	18-Jan-18	21:36:09
31	180118G2_31	1800043-06 REEPDW099 0.26823	18-Jan-18	21:48:35
32	180118G2_32	1800043-07 REEPDW100 0.28558	18-Jan-18	22:00:59

MJT1/19/2018

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2_IIS_AREA.qld

Last Altered: Friday, January 19, 2018 10:22:48 Pacific Standard Time
Printed: Friday, January 19, 2018 10:38:59 Pacific Standard Time

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
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34	180118G2_34	1800043-09 REEPDW101 0.28336	18-Jan-18	22:25:48
35	180118G2_35	1800043-10 REEPDW102 0.26529	18-Jan-18	22:38:13
36	180118G2_36	1800043-11 REEPDW103 0.26168	18-Jan-18	22:50:38
37	180118G2_37	1800043-12 REEPDW104 0.27166	18-Jan-18	23:03:04
38	180118G2_38	1800043-13 REEPDW105 0.26297	18-Jan-18	23:15:31
39	180118G2_39	1800043-14 REEPDW106 0.26776	18-Jan-18	23:27:57
40	180118G2_40	IPA	18-Jan-18	23:40:20
41	180118G2_41	ST180118G2-3 PFC CS4 537 18A1208	18-Jan-18	23:52:47
42	180118G2_42	IPA	19-Jan-18	00:05:14
43	180118G2_43	1800080-01 CH-AT-2RW58-0118 0.25076	19-Jan-18	00:17:41
44	180118G2_44	1800080-02 CH-AT-2FB58-0118 0.25017	19-Jan-18	00:30:06
45	180118G2_45	1800080-03 CH-AT-2RW58B-0118 0.24657	19-Jan-18	00:42:30
46	180118G2_46	1800080-04 CH-AT-2FB58B-0118 0.25157	19-Jan-18	00:54:55
47	180118G2_47	1800080-05 CH-AT-2RW58C-0118 0.25535	19-Jan-18	01:07:19
48	180118G2_48	1800080-06 CH-AT-2FB58C-0118 0.24979	19-Jan-18	01:19:45
49	180118G2_49	1800080-07 CH-AT-1RW146-0118 0.24276	19-Jan-18	01:32:13
50	180118G2_50	1800080-08 CH-AT-1FB146-0118 0.24492	19-Jan-18	01:44:40
51	180118G2_51	1800085-01 IR54-PSW-VL101-17D 0.24531	19-Jan-18	01:57:03
52	180118G2_52	1800085-02 IR54-PSW-VL101D-17D 0.24722	19-Jan-18	02:09:26
53	180118G2_53	1800085-03 IR54-PSW-FB-17D 0.25105	19-Jan-18	02:21:49
54	180118G2_54	1800016-04 REEPDW087 0.26892	19-Jan-18	02:34:13
55	180118G2_55	IPA	19-Jan-18	02:46:39
56	180118G2_56	ST180118G2-4 PFC CS2 537 18A1206	19-Jan-18	02:59:06

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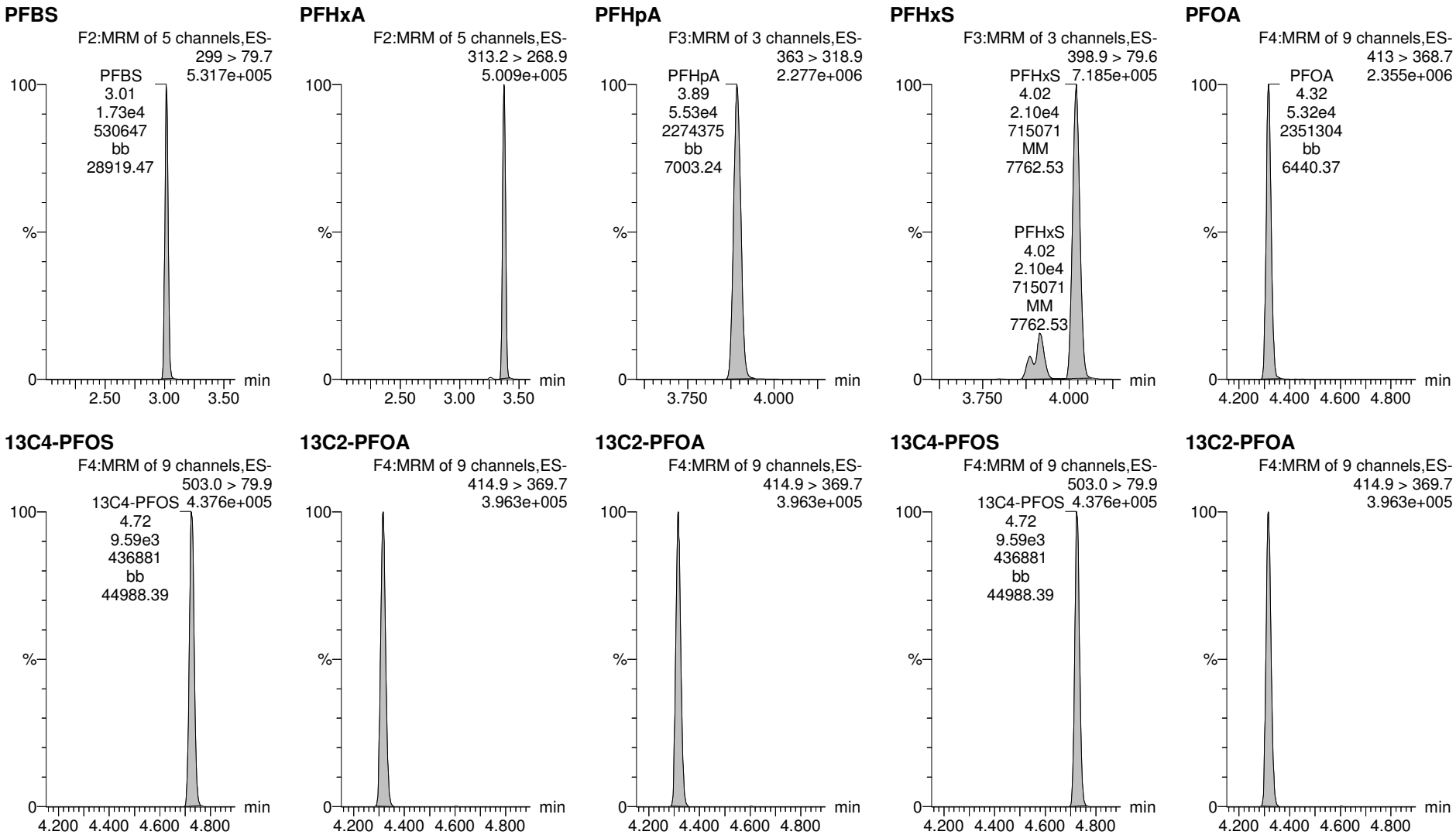
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Printed: Friday, January 19, 2018 13:55:19 Pacific Standard Time

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Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

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Vista Analytical Laboratory

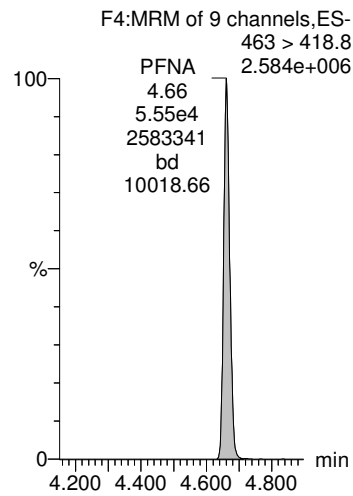
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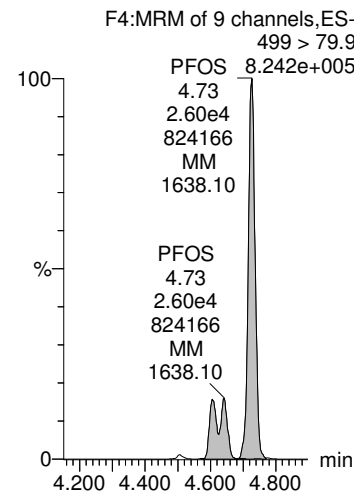
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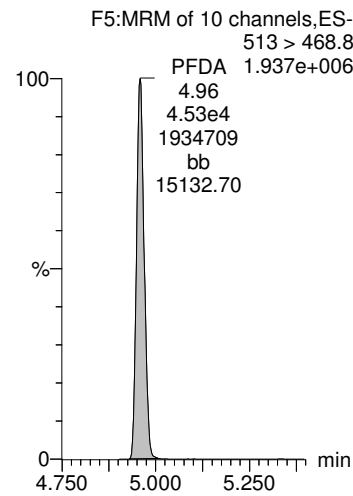
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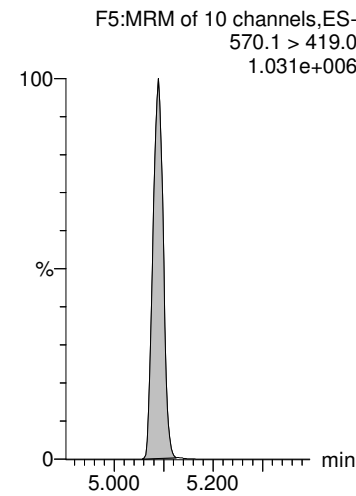
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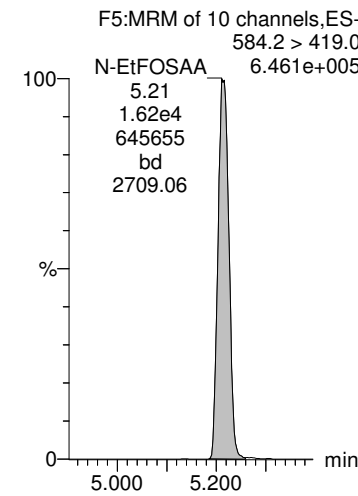
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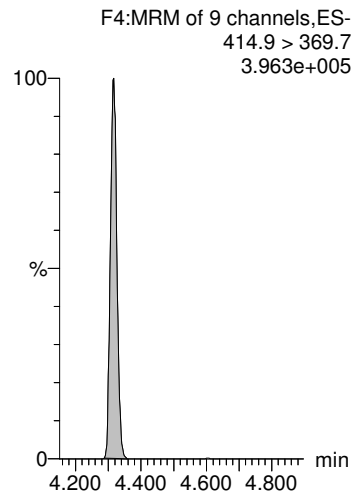
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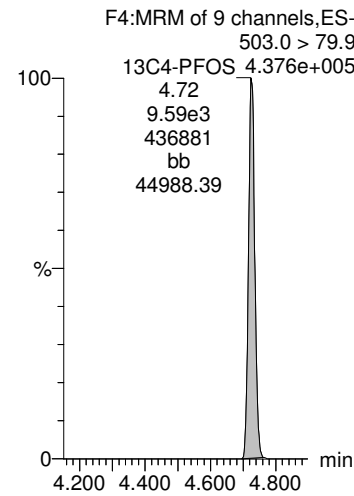
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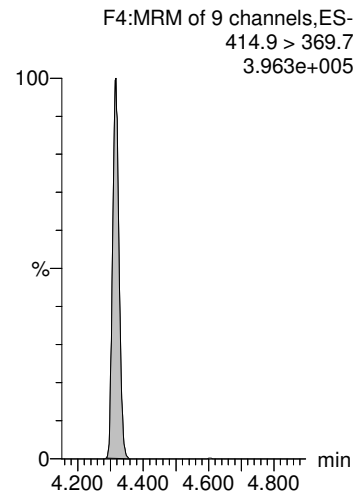
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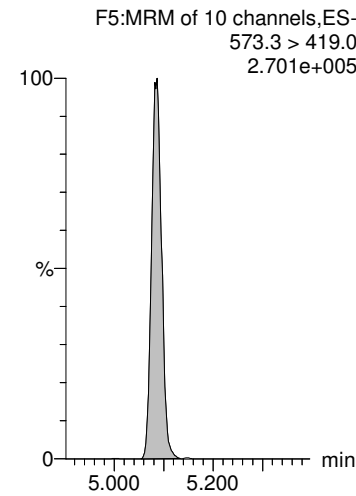
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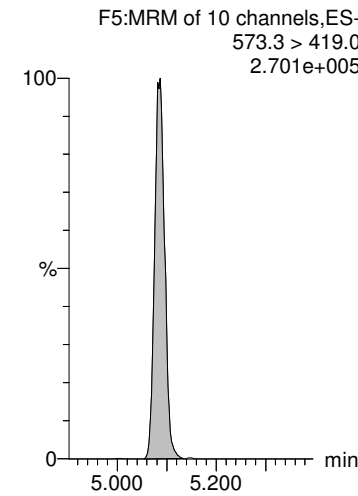
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d3-N-MeFOSAA

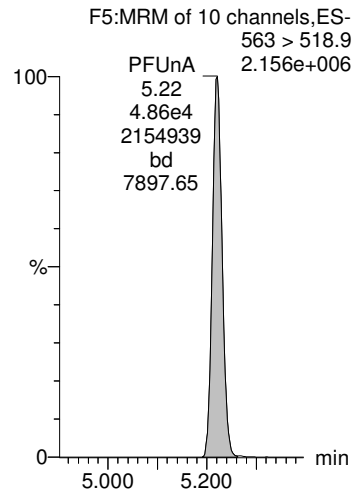


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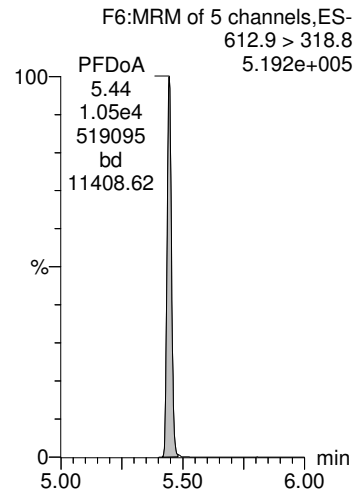
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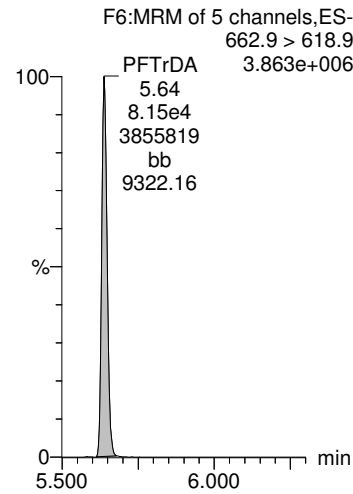
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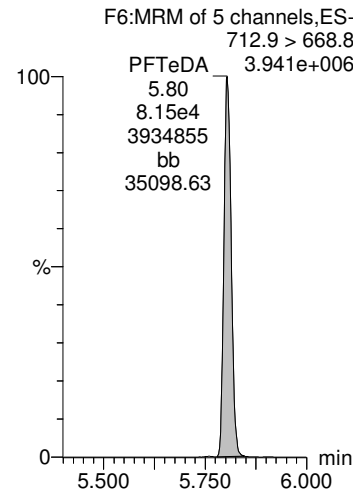
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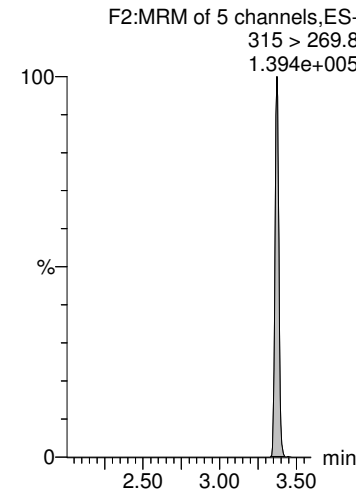
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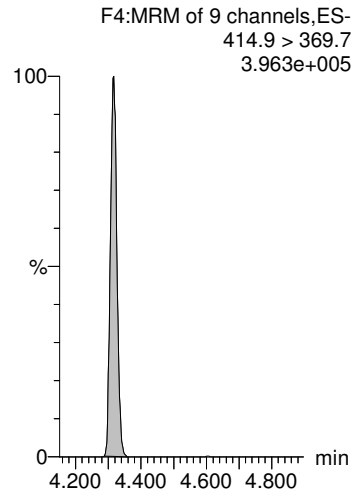
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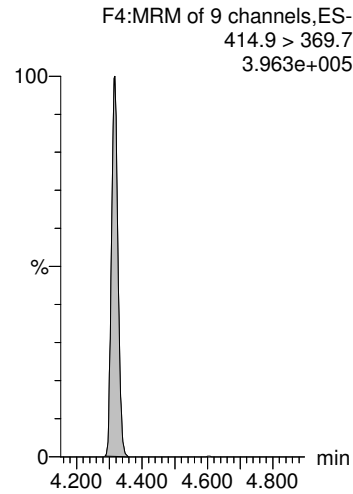
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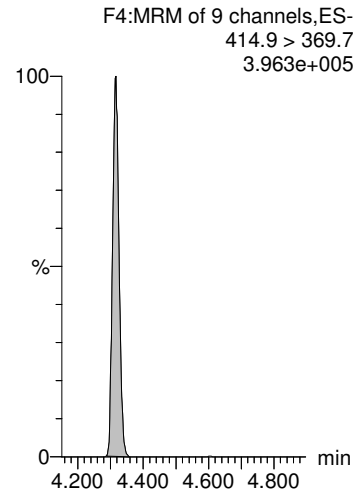
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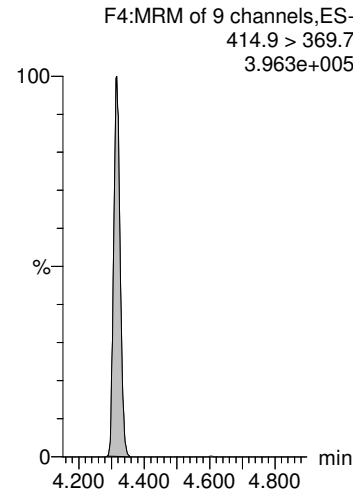
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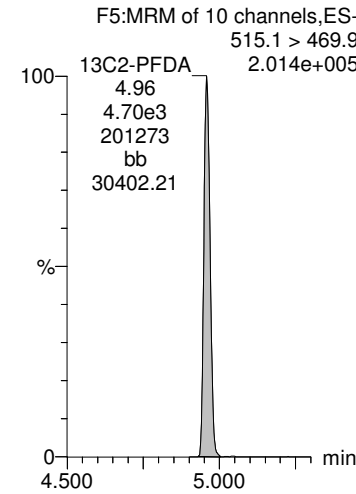
13C2-PFOA



13C2-PFOA



13C2-PFDA



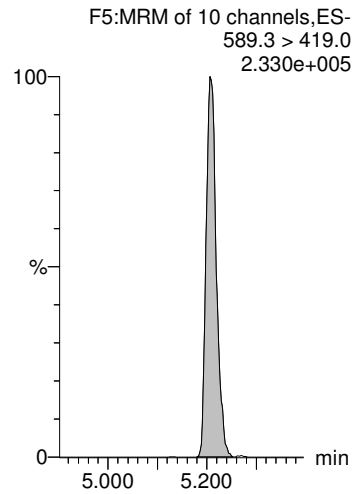
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Printed: Friday, January 19, 2018 13:55:19 Pacific Standard Time

Name: 180118G2_41, Date: 18-Jan-2018, Time: 23:52:47, ID: ST180118G2-3 PFC CS4 537 18A1208, Description: PFC CS4 537 18A1208

d5-N-EtFOSAA



Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__56.qld

Last Altered: Friday, January 19, 2018 13:58:29 Pacific Standard Time
Printed: Friday, January 19, 2018 13:58:50 Pacific Standard Time

Rev'd: AMH 01/22/2018

Method: U:\Q1.PRO\MethDB\PFAS_DW_L14_1214.mdb 11 Jan 2018 11:50:37
Calibration: U:\Q1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

A - CCAL USED ONLY FOR LIST OF 3
PFHXA NOT IN THE L3

Name: 180118G2_56, Date: 19-Jan-2018, Time: 02:59:06, ID: ST18011G2-4 PFC CS2 537 18A1206, Description: PFC CS2 537 18A1206

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	5.33e3	1.06e4	1.0000		3.03	3.02	14.4	17.446	78.9
2	2 PFHxA	313.2 > 268.9	4.38e3	1.04e4	1.0000		3.37	3.38	4.21	16.902	67.6
3	3 PFHpA	363 > 318.9	1.96e4	1.04e4	1.0000		3.89	3.89	18.8	21.416	85.7
4	4 PFHxS	398.9 > 79.6	6.99e3	1.06e4	1.0000		4.02	4.02	18.9	20.475	89.8
5	5 PFOA	413 > 368.7	1.76e4	1.04e4	1.0000		4.32	4.32	16.9	21.631	86.5
6	6 PFNA	463 > 418.8	1.79e4	1.04e4	1.0000		4.66	4.66	17.2	21.019	84.1
7	7 PFOS	499 > 79.9	8.70e3	1.06e4	1.0000		4.73	4.73	23.5	20.715	89.7
8	8 PFDA	513 > 468.8	1.60e4	1.04e4	1.0000		4.89	4.96	15.4	20.844	83.4
9	9 N-MeFOSAA	570.1 > 419.0	7.60e3	5.23e3	1.0000		5.03	5.09	58.1	27.838	111.4
10	10 N-EtFOSAA	584.2 > 419.0	5.45e3	5.23e3	1.0000		5.21	5.22	41.7	28.890	115.6
11	11 PFUnA	563 > 518.9	1.68e4	1.04e4	1.0000		5.15	5.22	16.2	21.148	84.6
12	12 PFDoA	612.9 > 318.8	3.69e3	1.04e4	1.0000		5.36	5.44	3.54	23.243	93.0
13	13 PFTTrDA	662.9 > 618.9	2.77e4	1.04e4	1.0000		5.58	5.64	26.6	22.363	89.5
14	14 PFTeDA	712.9 > 668.8	2.73e4	1.04e4	1.0000		5.75	5.80	26.2	23.125	92.5
15	15 13C2-PFHxA	315 > 269.8	4.48e3	1.04e4	1.0000	0.517	3.46	3.38	4.31	8.332	83.3
16	16 13C2-PFDA	515.1 > 469.9	5.02e3	1.04e4	1.0000	0.543	4.92	4.96	4.83	8.894	88.9
17	17 d5-N-EtFOSAA	589.3 > 419.0	6.80e3	5.23e3	1.0000	1.102	5.09	5.21	52.0	47.151	117.9
18	18 13C2-PFOA	414.9 > 369.7	1.04e4	1.04e4	1.0000	1.000	4.41	4.32	10.0	10.000	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.06e4	1.06e4	1.0000	1.000	4.81	4.73	28.7	28.700	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	5.23e3	5.23e3	1.0000	1.000	5.16	5.09	40.0	40.000	100.0

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Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2_IIS_AREA.qld

Last Altered: Friday, January 19, 2018 10:22:48 Pacific Standard Time
Printed: Friday, January 19, 2018 10:38:59 Pacific Standard Time

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Compound name: PFBS

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3	180118G2_3	IPA	18-Jan-18	16:00:40
4	180118G2_4	1800007-06 REEPDW084 0.25931	18-Jan-18	16:13:07
5	180118G2_5	1800009-01 REEPDW078FRB 0.26054	18-Jan-18	16:25:30
6	180118G2_6	1800007-05 @5XREEPDW082 0.25581	18-Jan-18	16:37:55
7	180118G2_7	1800007-07 @5X REEPDW083 0.25486	18-Jan-18	16:50:20
8	180118G2_8	1800016-03 @5X REEPDW086 0.25471	18-Jan-18	17:02:46
9	180118G2_9	1800016-03 REEPDW086 0.25471	18-Jan-18	17:15:11
10	180118G2_10	IPA	18-Jan-18	17:27:38
11	180118G2_11	B8A0066-BLK1 LRB 0.25	18-Jan-18	17:40:05
12	180118G2_12	B8A0083-BLK1 LRB 0.25	18-Jan-18	17:52:33
13	180118G2_13	B8A0089-BLK1 LRB 0.25	18-Jan-18	18:04:56
14	180118G2_14	B8A0066-BS1 LFB 0.25	18-Jan-18	18:17:19
15	180118G2_15	B8A0066-MS1 LFSM 0.27048	18-Jan-18	18:29:44
16	180118G2_16	B8A0066-MSD1 LFSMD 0.26633	18-Jan-18	18:42:09
17	180118G2_17	B8A0083-BS1 LFB 0.25	18-Jan-18	18:54:34
18	180118G2_18	B8A0083-MS1 LFSM 0.24055	18-Jan-18	19:07:00
19	180118G2_19	B8A0083-MSD1 LFSMD 0.2463	18-Jan-18	19:19:27
20	180118G2_20	B8A0089-BS1 LFB 0.25	18-Jan-18	19:31:54
21	180118G2_21	B8A0089-MS1 LFSM 0.24449	18-Jan-18	19:44:17
22	180118G2_22	B8A0089-MSD1 LFSMD 0.24187	18-Jan-18	19:56:41
23	180118G2_23	1800043-01 REEPDW094 0.27915	18-Jan-18	20:09:06
24	180118G2_24	1800043-02 REEPDW095 0.27047	18-Jan-18	20:21:30
25	180118G2_25	1800043-03 REEPDW096 0.28406	18-Jan-18	20:33:56
26	180118G2_26	1800043-04 REEPDW097 0.26571	18-Jan-18	20:46:21
27	180118G2_27	IPA	18-Jan-18	20:58:49
28	180118G2_28	ST180118G2-2 PFC CS2 537 18A1206	18-Jan-18	21:11:16
29	180118G2_29	IPA	18-Jan-18	21:23:41
30	180118G2_30	1800043-05 REEPDW098 0.27228	18-Jan-18	21:36:09
31	180118G2_31	1800043-06 REEPDW099 0.26823	18-Jan-18	21:48:35
32	180118G2_32	1800043-07 REEPDW100 0.28558	18-Jan-18	22:00:59

MJT1/19/2018

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2_IIS_AREA.qld

Last Altered: Friday, January 19, 2018 10:22:48 Pacific Standard Time

Printed: Friday, January 19, 2018 10:38:59 Pacific Standard Time

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
33	180118G2_33	1800043-08 REEPDW509 0.27456	18-Jan-18	22:13:23
34	180118G2_34	1800043-09 REEPDW101 0.28336	18-Jan-18	22:25:48
35	180118G2_35	1800043-10 REEPDW102 0.26529	18-Jan-18	22:38:13
36	180118G2_36	1800043-11 REEPDW103 0.26168	18-Jan-18	22:50:38
37	180118G2_37	1800043-12 REEPDW104 0.27166	18-Jan-18	23:03:04
38	180118G2_38	1800043-13 REEPDW105 0.26297	18-Jan-18	23:15:31
39	180118G2_39	1800043-14 REEPDW106 0.26776	18-Jan-18	23:27:57
40	180118G2_40	IPA	18-Jan-18	23:40:20
41	180118G2_41	ST180118G2-3 PFC CS4 537 18A1208	18-Jan-18	23:52:47
42	180118G2_42	IPA	19-Jan-18	00:05:14
43	180118G2_43	1800080-01 CH-AT-2RW58-0118 0.25076	19-Jan-18	00:17:41
44	180118G2_44	1800080-02 CH-AT-2FB58-0118 0.25017	19-Jan-18	00:30:06
45	180118G2_45	1800080-03 CH-AT-2RW58B-0118 0.24657	19-Jan-18	00:42:30
46	180118G2_46	1800080-04 CH-AT-2FB58B-0118 0.25157	19-Jan-18	00:54:55
47	180118G2_47	1800080-05 CH-AT-2RW58C-0118 0.25535	19-Jan-18	01:07:19
48	180118G2_48	1800080-06 CH-AT-2FB58C-0118 0.24979	19-Jan-18	01:19:45
49	180118G2_49	1800080-07 CH-AT-1RW146-0118 0.24276	19-Jan-18	01:32:13
50	180118G2_50	1800080-08 CH-AT-1FB146-0118 0.24492	19-Jan-18	01:44:40
51	180118G2_51	1800085-01 IR54-PSW-VL101-17D 0.24531	19-Jan-18	01:57:03
52	180118G2_52	1800085-02 IR54-PSW-VL101D-17D 0.24722	19-Jan-18	02:09:26
53	180118G2_53	1800085-03 IR54-PSW-FB-17D 0.25105	19-Jan-18	02:21:49
54	180118G2_54	1800016-04 REEPDW087 0.26892	19-Jan-18	02:34:13
55	180118G2_55	IPA 18G2	19-Jan-18	02:46:39
56	180118G2_56	ST180118G2-4 PFC CS2 537 18A1206	19-Jan-18	02:59:06

Vista Analytical Laboratory

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__56.qld

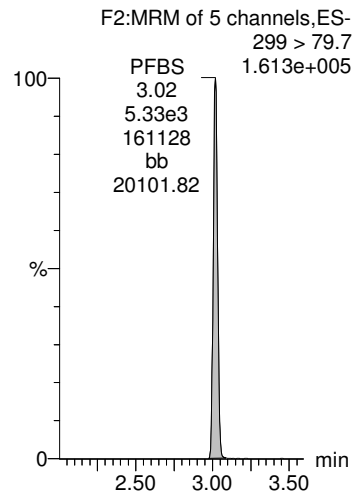
Last Altered: Friday, January 19, 2018 13:58:29 Pacific Standard Time

Printed: Friday, January 19, 2018 13:58:50 Pacific Standard Time

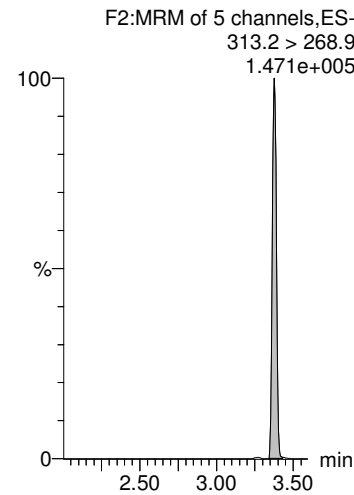
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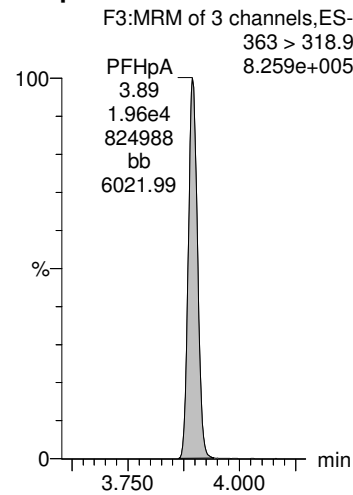
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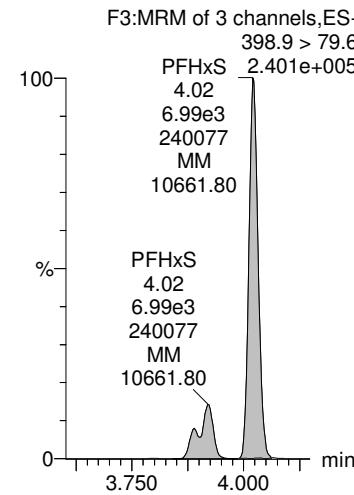
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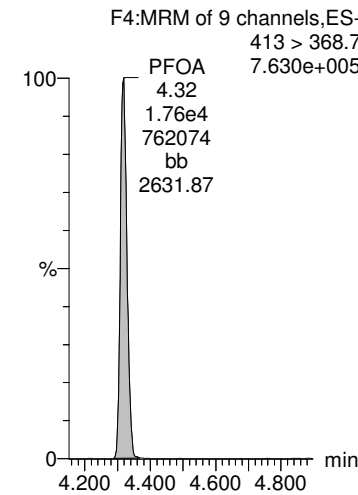
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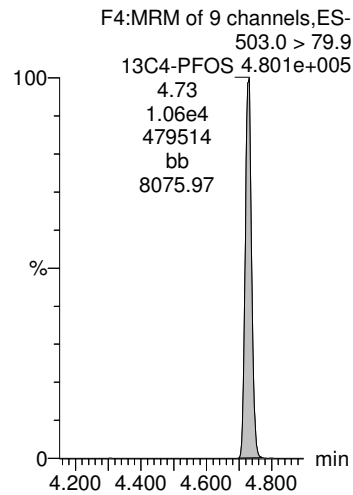
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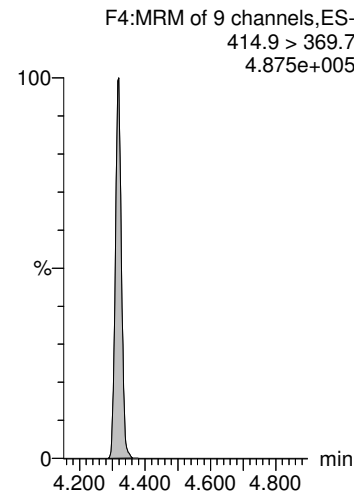
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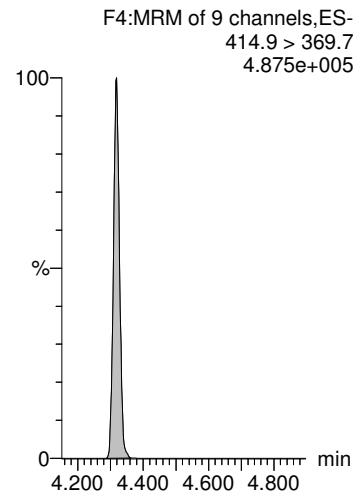
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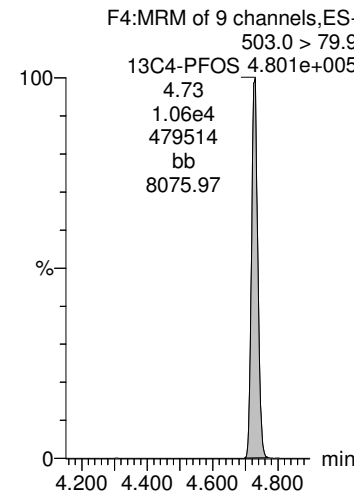
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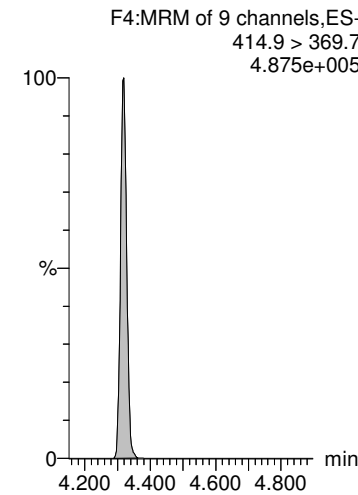
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13C4-PFOS



13C2-PFOA



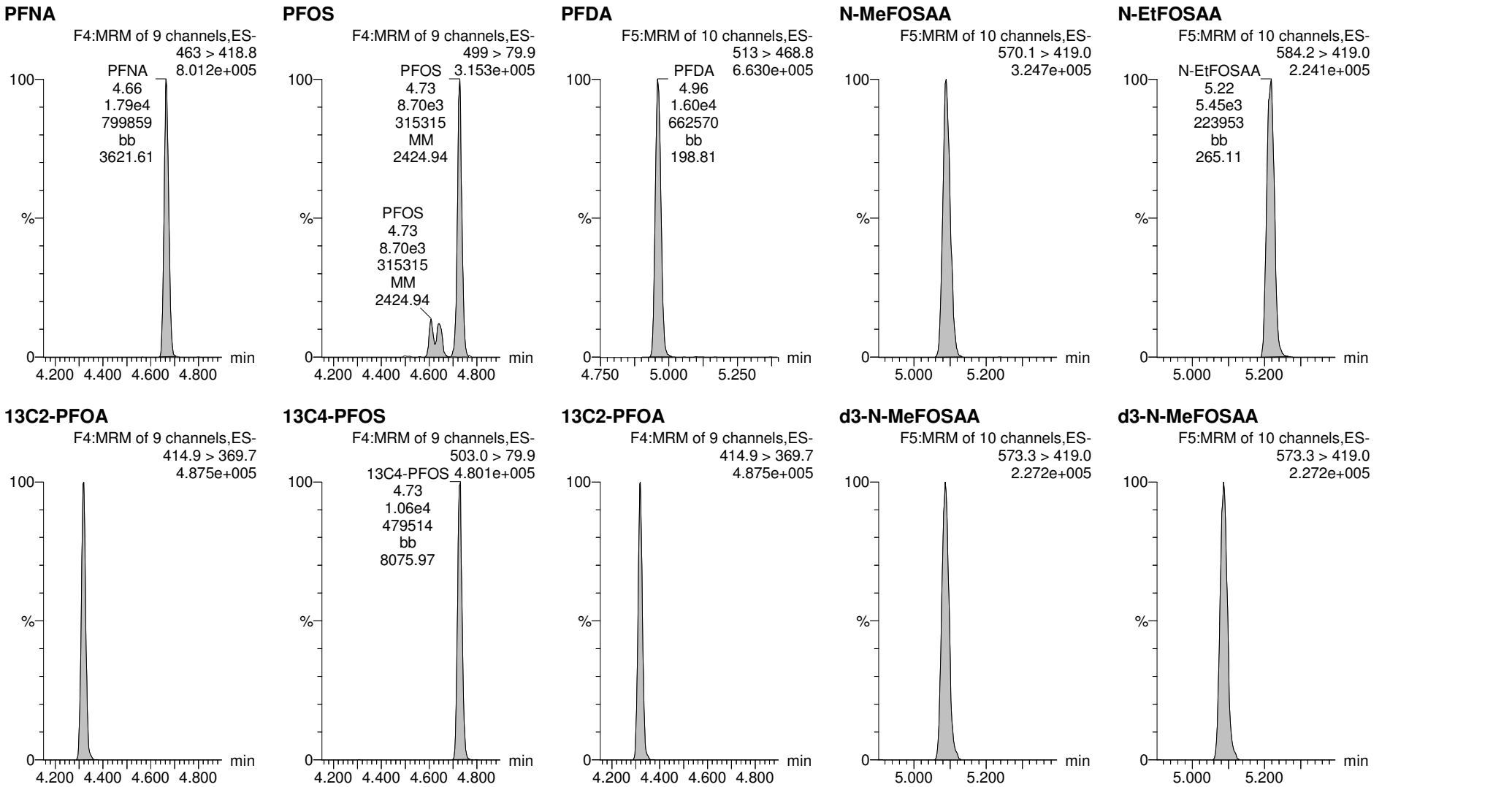
Vista Analytical Laboratory

Dataset: U:\Q1.PRO\Results\2018\180118G2\180118G2__56.qld

Last Altered: Friday, January 19, 2018 13:58:29 Pacific Standard Time

Printed: Friday, January 19, 2018 13:58:50 Pacific Standard Time

Name: 180118G2_56, Date: 19-Jan-2018, Time: 02:59:06, ID: ST18011G2-4 PFC CS2 537 18A1206, Description: PFC CS2 537 18A1206



Vista Analytical Laboratory

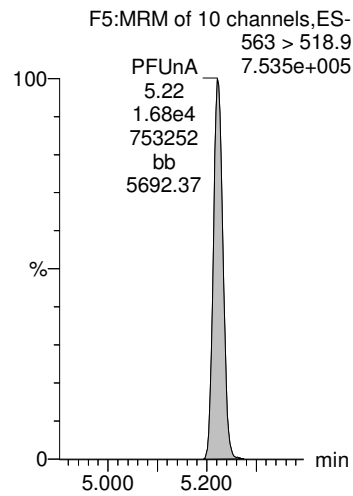
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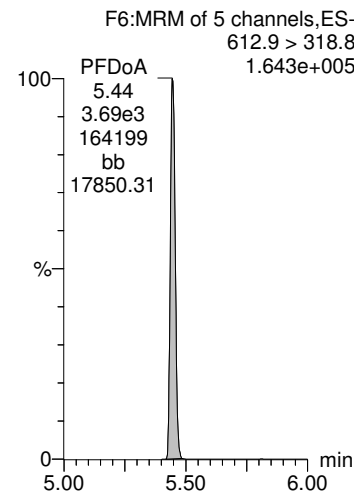
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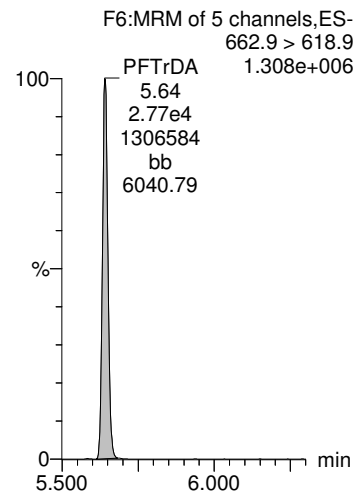
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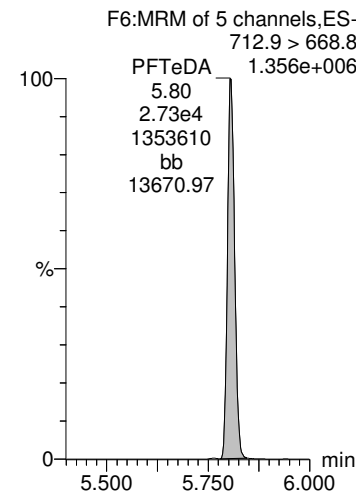
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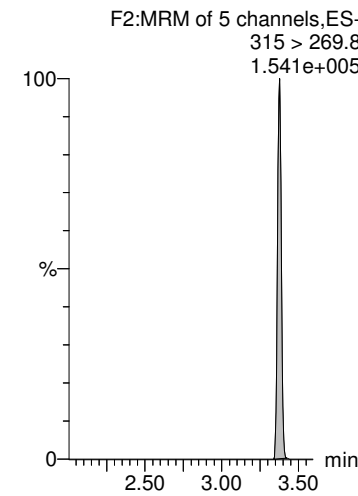
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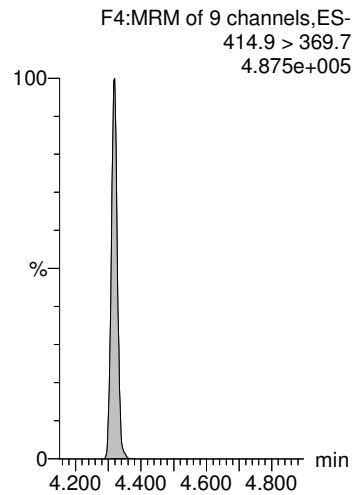
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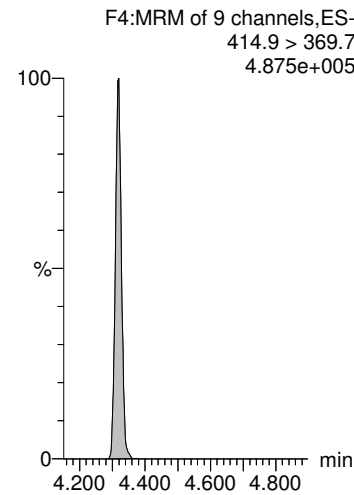
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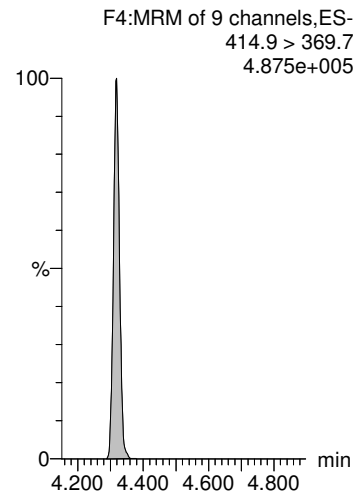
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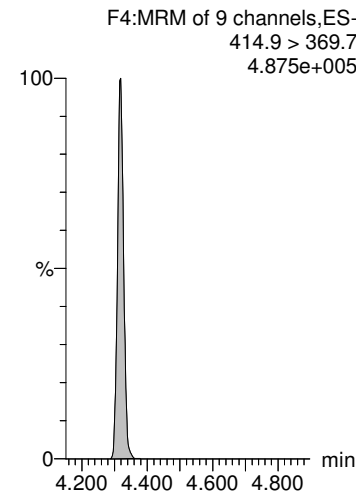
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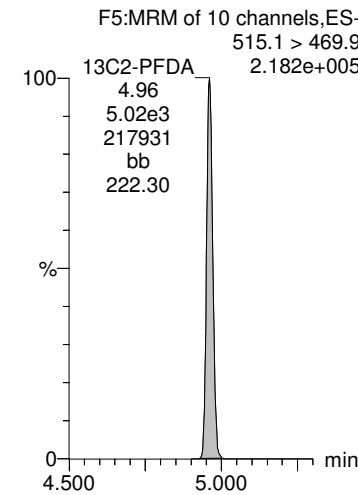
13C2-PFOA



13C2-PFOA



13C2-PFDA



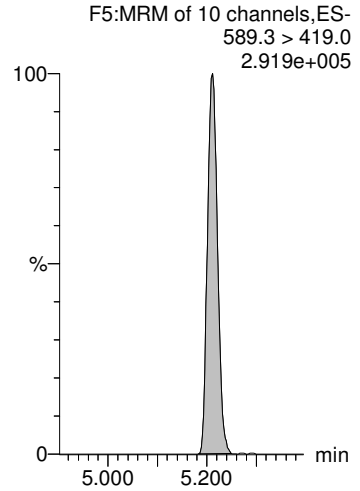
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Printed: Friday, January 19, 2018 13:58:50 Pacific Standard Time

Name: 180118G2_56, Date: 19-Jan-2018, Time: 02:59:06, ID: ST18011G2-4 PFC CS2 537 18A1206, Description: PFC CS2 537 18A1206

d5-N-EtFOSAA



INITIAL CALIBRATION (ICAL)
INCLUDING ASSOCIATED
INITIAL CALIBRATION VERIFICATION (ICV) AND INSTRUMENT BLANK (IB)

Dataset: U:\G1.PRO\Results\2018\180114G2\180114G2-CRV.qld

Last Altered: Monday, January 15, 2018 10:11:44 Pacific Standard Time

Printed: Monday, January 15, 2018 10:15:46 Pacific Standard Time

Method: U:\G1.PRO\MethDB\PFAS_DW_L14_1214.mdb 11 Jan 2018 11:50:37

Calibration: U:\G1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Compound name: PFBS

Coefficient of Determination: $R^2 = 0.999737$

Calibration curve: $0.826574 * x$

Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

DM
1/15/18
JA
01/15/2018

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180114G2_2	Standard	0.443	3.02	122.240	9293.236	0.378	0.5	3.2	NO	1.000	NO	bb
2	2 180114G2_3	Standard	0.885	3.03	225.142	8633.023	0.748	0.9	2.3	NO	1.000	NO	bb
3	3 180114G2_4	Standard	1.770	3.02	479.740	9301.095	1.480	1.8	1.2	NO	1.000	NO	bb
4	4 180114G2_5	Standard	4.420	3.03	1148.506	9846.296	3.348	4.1	-8.4	NO	1.000	NO	bb
5	5 180114G2_6	Standard	8.850	3.03	2370.643	8997.394	7.562	9.1	3.4	NO	1.000	NO	bd
6	6 180114G2_7	Standard	22.100	3.02	5749.949	8921.570	18.497	22.4	1.3	NO	1.000	NO	bb
7	7 180114G2_8	Standard	44.200	3.03	10748.365	8362.585	36.888	44.6	1.0	NO	1.000	NO	bb
8	8 180114G2_9	Standard	66.300	3.03	15945.886	8335.439	54.904	66.4	0.2	NO	1.000	NO	bb
9	9 180114G2_10	Standard	88.400	3.03	21255.029	8426.012	72.397	87.6	-0.9	NO	1.000	NO	bb

Compound name: PFHxA

Coefficient of Determination: $R^2 = 0.998269$

Calibration curve: $-4.36355e-005 * x^2 + 0.249572 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180114G2_2	Standard	0.500	3.39	134.772	7270.992	0.185	0.7	48.6	NO	0.998	NO	bb
2	2 180114G2_3	Standard	1.000	3.39	227.340	7137.396	0.319	1.3	27.7	NO	0.998	NO	bb
3	3 180114G2_4	Standard	2.000	3.39	313.216	7332.093	0.427	1.7	-14.4	NO	0.998	NO	bb
4	4 180114G2_5	Standard	5.000	3.39	863.158	7006.645	1.232	4.9	-1.2	NO	0.998	NO	bb
5	5 180114G2_6	Standard	10.000	3.39	1777.500	6921.691	2.568	10.3	3.1	NO	0.998	NO	bb
6	6 180114G2_7	Standard	25.000	3.39	4310.332	7451.987	5.784	23.3	-6.9	NO	0.998	NO	bb
7	7 180114G2_8	Standard	50.000	3.39	8801.604	6957.298	12.651	51.1	2.3	NO	0.998	NO	bb
8	8 180114G2_9	Standard	75.000	3.39	12517.970	6679.484	18.741	76.1	1.5	NO	0.998	NO	bb
9	9 180114G2_10	Standard	100.000	3.39	15892.226	6545.588	24.279	99.0	-1.0	NO	0.998	NO	bb

Dataset: U:\G1.PRO\Results\2018\180114G2\180114G2-CRV.qld

Last Altered: Monday, January 15, 2018 10:11:44 Pacific Standard Time

Printed: Monday, January 15, 2018 10:15:46 Pacific Standard Time

Compound name: PFHpA

Coefficient of Determination: $R^2 = 0.999308$

Calibration curve: $0.877756 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180114G2_2	Standard	0.500	3.91	306.996	7270.992	0.422	0.5	-3.8	NO	0.999	NO	bb
2	2 180114G2_3	Standard	1.000	3.92	653.758	7137.396	0.916	1.0	4.4	NO	0.999	NO	bb
3	3 180114G2_4	Standard	2.000	3.92	1241.200	7332.093	1.693	1.9	-3.6	NO	0.999	NO	bb
4	4 180114G2_5	Standard	5.000	3.92	3268.902	7006.645	4.665	5.3	6.3	NO	0.999	NO	bb
5	5 180114G2_6	Standard	10.000	3.92	6285.193	6921.691	9.080	10.3	3.5	NO	0.999	NO	bb
6	6 180114G2_7	Standard	25.000	3.92	16065.663	7451.987	21.559	24.6	-1.8	NO	0.999	NO	bd
7	7 180114G2_8	Standard	50.000	3.92	29205.398	6957.298	41.978	47.8	-4.4	NO	0.999	NO	bb
8	8 180114G2_9	Standard	75.000	3.92	44842.434	6679.484	67.135	76.5	2.0	NO	0.999	NO	bb
9	9 180114G2_10	Standard	100.000	3.92	57751.070	6545.588	88.229	100.5	0.5	NO	0.999	NO	bb

Compound name: PFHxS

Coefficient of Determination: $R^2 = 0.998405$

Calibration curve: $0.924667 * x$

Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180114G2_2	Standard	0.455	4.04	126.111	9293.236	0.389	0.4	-7.4	NO	0.998	NO	MM
2	2 180114G2_3	Standard	0.910	4.04	256.406	8633.023	0.852	0.9	1.3	NO	0.998	NO	MM
3	3 180114G2_4	Standard	1.820	4.05	498.824	9301.095	1.539	1.7	-8.5	NO	0.998	NO	MM
4	4 180114G2_5	Standard	4.560	4.04	1275.115	9846.296	3.717	4.0	-11.9	NO	0.998	NO	MM
5	5 180114G2_6	Standard	9.120	4.04	2496.199	8997.394	7.962	8.6	-5.6	NO	0.998	NO	MM
6	6 180114G2_7	Standard	22.800	4.05	6361.030	8921.570	20.463	22.1	-2.9	NO	0.998	NO	MM
7	7 180114G2_8	Standard	45.600	4.04	12563.642	8362.585	43.118	46.6	2.3	NO	0.998	NO	MM
8	8 180114G2_9	Standard	68.400	4.04	19232.275	8335.439	66.219	71.6	4.7	NO	0.998	NO	MM
9	9 180114G2_10	Standard	91.200	4.04	24120.807	8426.012	82.158	88.9	-2.6	NO	0.998	NO	MM

Dataset: U:\G1.PRO\Results\2018\180114G2\180114G2-CRV.qld

Last Altered: Monday, January 15, 2018 10:11:44 Pacific Standard Time

Printed: Monday, January 15, 2018 10:15:46 Pacific Standard Time

Compound name: PFOA

Coefficient of Determination: $R^2 = 0.998287$

Calibration curve: $0.781315 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180114G2_2	Standard	0.500	4.34	248.286	7270.992	0.341	0.4	-12.6	NO	0.998	NO	bb
2	2 180114G2_3	Standard	1.000	4.34	629.475	7137.396	0.882	1.1	12.9	NO	0.998	NO	bd
3	3 180114G2_4	Standard	2.000	4.33	1197.607	7332.093	1.633	2.1	4.5	NO	0.998	NO	bb
4	4 180114G2_5	Standard	5.000	4.34	3058.294	7006.645	4.365	5.6	11.7	NO	0.998	NO	bb
5	5 180114G2_6	Standard	10.000	4.34	5559.835	6921.691	8.032	10.3	2.8	NO	0.998	NO	bb
6	6 180114G2_7	Standard	25.000	4.34	13805.583	7451.987	18.526	23.7	-5.2	NO	0.998	NO	bd
7	7 180114G2_8	Standard	50.000	4.34	26112.586	6957.298	37.533	48.0	-3.9	NO	0.998	NO	bb
8	8 180114G2_9	Standard	75.000	4.33	38329.234	6679.484	57.384	73.4	-2.1	NO	0.998	NO	bb
9	9 180114G2_10	Standard	100.000	4.34	53076.070	6545.588	81.087	103.8	3.8	NO	0.998	NO	bb

Compound name: PFNA

Coefficient of Determination: $R^2 = 0.998977$

Calibration curve: $0.817469 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180114G2_2	Standard	0.500	4.68	318.618	7270.992	0.438	0.5	7.2	NO	0.999	NO	bb
2	2 180114G2_3	Standard	1.000	4.68	565.926	7137.396	0.793	1.0	-3.0	NO	0.999	NO	bb
3	3 180114G2_4	Standard	2.000	4.67	1052.970	7332.093	1.436	1.8	-12.2	NO	0.999	NO	bb
4	4 180114G2_5	Standard	5.000	4.67	3048.596	7006.645	4.351	5.3	6.5	NO	0.999	NO	bb
5	5 180114G2_6	Standard	10.000	4.68	5690.879	6921.691	8.222	10.1	0.6	NO	0.999	NO	bb
6	6 180114G2_7	Standard	25.000	4.68	13958.089	7451.987	18.731	22.9	-8.3	NO	0.999	NO	bb
7	7 180114G2_8	Standard	50.000	4.68	29013.211	6957.298	41.702	51.0	2.0	NO	0.999	NO	bd
8	8 180114G2_9	Standard	75.000	4.67	41192.633	6679.484	61.670	75.4	0.6	NO	0.999	NO	bd
9	9 180114G2_10	Standard	100.000	4.67	53770.277	6545.588	82.147	100.5	0.5	NO	0.999	NO	bb

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Compound name: PFOS

Coefficient of Determination: $R^2 = 0.998384$

Calibration curve: $1.13681 * x$

Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180114G2_2	Standard	0.464	4.75	183.634	9293.236	0.567	0.5	7.5	NO	0.998	NO	MM
2	2 180114G2_3	Standard	0.925	4.74	336.592	8633.023	1.119	1.0	6.4	NO	0.998	NO	MM
3	3 180114G2_4	Standard	1.850	4.74	501.923	9301.095	1.549	1.4	-26.4	NO	0.998	NO	MM
4	4 180114G2_5	Standard	4.625	4.74	1591.756	9846.296	4.640	4.1	-11.8	NO	0.998	NO	MM
5	5 180114G2_6	Standard	9.250	4.74	3196.110	8997.394	10.195	9.0	-3.0	NO	0.998	NO	MM
6	6 180114G2_7	Standard	23.100	4.74	7637.585	8921.570	24.570	21.6	-6.4	NO	0.998	NO	MM
7	7 180114G2_8	Standard	46.200	4.74	15151.883	8362.585	52.001	45.7	-1.0	NO	0.998	NO	MM
8	8 180114G2_9	Standard	69.300	4.74	23434.678	8335.439	80.689	71.0	2.4	NO	0.998	NO	MM
9	9 180114G2_10	Standard	92.400	4.74	31335.148	8426.012	106.731	93.9	1.6	NO	0.998	NO	MM

Compound name: PFDA

Coefficient of Determination: $R^2 = 0.998859$

Calibration curve: $-0.000966258 * x^2 + 0.759574 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180114G2_2	Standard	0.500	4.98	329.989	7270.992	0.454	0.6	19.6	NO	0.999	NO	bb
2	2 180114G2_3	Standard	1.000	4.98	584.207	7137.396	0.819	1.1	7.9	NO	0.999	NO	bb
3	3 180114G2_4	Standard	2.000	4.98	1056.481	7332.093	1.441	1.9	-4.9	NO	0.999	NO	bb
4	4 180114G2_5	Standard	5.000	4.98	2873.781	7006.645	4.102	5.4	8.7	NO	0.999	NO	bb
5	5 180114G2_6	Standard	10.000	4.98	4857.587	6921.691	7.018	9.4	-6.5	NO	0.999	NO	bb
6	6 180114G2_7	Standard	25.000	4.98	13057.369	7451.987	17.522	23.8	-4.8	NO	0.999	NO	bb
7	7 180114G2_8	Standard	50.000	4.98	25342.545	6957.298	36.426	51.3	2.6	NO	0.999	NO	bb
8	8 180114G2_9	Standard	75.000	4.98	35162.762	6679.484	52.643	76.8	2.4	NO	0.999	NO	bb
9	9 180114G2_10	Standard	100.000	4.98	42728.926	6545.588	65.279	98.2	-1.8	NO	0.999	NO	bb

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Compound name: N-MeFOSAA

Coefficient of Determination: $R^2 = 0.996181$

Calibration curve: $0.000749907 * x^2 + 2.06632 * x$

Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)

Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180114G2_2	Standard	0.500	5.10	119.196	4369.841	1.091	0.5	5.6	NO	0.996	NO	bbX
2	2 180114G2_3	Standard	1.000	5.12	175.900	4862.716	1.447	0.7	-30.0	NO	0.996	NO	MM
3	3 180114G2_4	Standard	2.000	5.11	442.142	5415.664	3.266	1.6	-21.0	NO	0.996	NO	bb
4	4 180114G2_5	Standard	5.000	5.11	986.274	4762.651	8.283	4.0	-19.9	NO	0.996	NO	bb
5	5 180114G2_6	Standard	10.000	5.11	2461.607	4945.121	19.911	9.6	-4.0	NO	0.996	NO	bb
6	6 180114G2_7	Standard	25.000	5.11	6895.600	4633.480	59.528	28.5	14.1	NO	0.996	NO	bb
7	7 180114G2_8	Standard	50.000	5.10	11935.933	4688.595	101.830	48.4	-3.1	NO	0.996	NO	bd
8	8 180114G2_9	Standard	75.000	5.11	19346.742	4824.405	160.407	75.6	0.7	NO	0.996	NO	MM
9	9 180114G2_10	Standard	100.000	5.11	23974.930	4496.842	213.260	99.6	-0.4	NO	0.996	NO	bb

Compound name: N-EtFOSAA

Coefficient of Determination: $R^2 = 0.997950$

Calibration curve: $1.44307 * x$

Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180114G2_2	Standard	0.500	5.23	55.489	4369.841	0.508	0.4	-29.6	NO	0.998	NO	MMX
2	2 180114G2_3	Standard	1.000	5.23	141.633	4862.716	1.165	0.8	-19.3	NO	0.998	NO	bb
3	3 180114G2_4	Standard	2.000	5.23	339.854	5415.664	2.510	1.7	-13.0	NO	0.998	NO	MM
4	4 180114G2_5	Standard	5.000	5.23	955.611	4762.651	8.026	5.6	11.2	NO	0.998	NO	bb
5	5 180114G2_6	Standard	10.000	5.23	1823.797	4945.121	14.752	10.2	2.2	NO	0.998	NO	bb
6	6 180114G2_7	Standard	25.000	5.23	4200.526	4633.480	36.262	25.1	0.5	NO	0.998	NO	bb
7	7 180114G2_8	Standard	50.000	5.23	8817.621	4688.595	75.226	52.1	4.3	NO	0.998	NO	bb
8	8 180114G2_9	Standard	75.000	5.23	12332.249	4824.405	102.249	70.9	-5.5	NO	0.998	NO	bb
9	9 180114G2_10	Standard	100.000	5.23	16475.486	4496.842	146.552	101.6	1.6	NO	0.998	NO	bb

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Compound name: PFUnA

Coefficient of Determination: $R^2 = 0.993491$

Calibration curve: $0.76368 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180114G2_2	Standard	0.500	5.24	209.020	7270.992	0.287	0.4	-24.7	NO	0.993	NO	MM
2	2	180114G2_3	Standard	1.000	5.23	504.107	7137.396	0.706	0.9	-7.5	NO	0.993	NO	bb
3	3	180114G2_4	Standard	2.000	5.24	1063.130	7332.093	1.450	1.9	-5.1	NO	0.993	NO	bb
4	4	180114G2_5	Standard	5.000	5.24	2653.217	7006.645	3.787	5.0	-0.8	NO	0.993	NO	bb
5	5	180114G2_6	Standard	10.000	5.24	5599.458	6921.691	8.090	10.6	5.9	NO	0.993	NO	bb
6	6	180114G2_7	Standard	25.000	5.24	11647.961	7451.987	15.631	20.5	-18.1	NO	0.993	NO	bb
7	7	180114G2_8	Standard	50.000	5.24	29005.773	6957.298	41.691	54.6	9.2	NO	0.993	NO	bd
8	8	180114G2_9	Standard	75.000	5.24	40058.723	6679.484	59.973	78.5	4.7	NO	0.993	NO	bd
9	9	180114G2_10	Standard	100.000	5.24	48066.480	6545.588	73.433	96.2	-3.8	NO	0.993	NO	bb

Compound name: PFDoA

Coefficient of Determination: $R^2 = 0.997497$

Calibration curve: $0.152407 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180114G2_2	Standard	0.500	5.45	41.611	7270.992	0.057	0.4	-24.9	NO	0.997	NO	MM
2	2	180114G2_3	Standard	1.000	5.46	80.812	7137.396	0.113	0.7	-25.7	NO	0.997	NO	bb
3	3	180114G2_4	Standard	2.000	5.46	203.603	7332.093	0.278	1.8	-8.9	NO	0.997	NO	bb
4	4	180114G2_5	Standard	5.000	5.46	424.029	7006.645	0.605	4.0	-20.6	NO	0.997	NO	bb
5	5	180114G2_6	Standard	10.000	5.46	1014.570	6921.691	1.466	9.6	-3.8	NO	0.997	NO	bb
6	6	180114G2_7	Standard	25.000	5.46	2724.365	7451.987	3.656	24.0	-4.0	NO	0.997	NO	bd
7	7	180114G2_8	Standard	50.000	5.46	5068.812	6957.298	7.286	47.8	-4.4	NO	0.997	NO	bb
8	8	180114G2_9	Standard	75.000	5.46	7841.413	6679.484	11.740	77.0	2.7	NO	0.997	NO	bb
9	9	180114G2_10	Standard	100.000	5.46	10290.466	6545.588	15.721	103.2	3.2	NO	0.997	NO	bd

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Compound name: PFTTrDA

Coefficient of Determination: $R^2 = 0.999127$

Calibration curve: $1.18882 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: $1/x$, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180114G2_2	Standard	0.500	5.66	433.552	7270.992	0.596	0.5	0.3	NO	0.999	NO	bb
2	2	180114G2_3	Standard	1.000	5.66	882.811	7137.396	1.237	1.0	4.0	NO	0.999	NO	bb
3	3	180114G2_4	Standard	2.000	5.66	1698.913	7332.093	2.317	1.9	-2.5	NO	0.999	NO	bb
4	4	180114G2_5	Standard	5.000	5.66	3941.729	7006.645	5.626	4.7	-5.4	NO	0.999	NO	bd
5	5	180114G2_6	Standard	10.000	5.66	8491.107	6921.691	12.267	10.3	3.2	NO	0.999	NO	bd
6	6	180114G2_7	Standard	25.000	5.66	20549.088	7451.987	27.575	23.2	-7.2	NO	0.999	NO	bb
7	7	180114G2_8	Standard	50.000	5.66	41705.898	6957.298	59.946	50.4	0.8	NO	0.999	NO	bb
8	8	180114G2_9	Standard	75.000	5.66	58906.910	6679.484	88.191	74.2	-1.1	NO	0.999	NO	bd
9	9	180114G2_10	Standard	100.000	5.66	79491.430	6545.588	121.443	102.2	2.2	NO	0.999	NO	bd

Compound name: PFTeDA

Coefficient of Determination: $R^2 = 0.998282$

Calibration curve: $1.13384 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: $1/x$, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180114G2_2	Standard	0.500	5.82	414.954	7270.992	0.571	0.5	0.7	NO	0.998	NO	bb
2	2	180114G2_3	Standard	1.000	5.83	782.897	7137.396	1.097	1.0	-3.3	NO	0.998	NO	bb
3	3	180114G2_4	Standard	2.000	5.82	1730.498	7332.093	2.360	2.1	4.1	NO	0.998	NO	bb
4	4	180114G2_5	Standard	5.000	5.82	4063.844	7006.645	5.800	5.1	2.3	NO	0.998	NO	db
5	5	180114G2_6	Standard	10.000	5.83	7304.762	6921.691	10.553	9.3	-6.9	NO	0.998	NO	bb
6	6	180114G2_7	Standard	25.000	5.83	18824.959	7451.987	25.262	22.3	-10.9	NO	0.998	NO	bb
7	7	180114G2_8	Standard	50.000	5.83	40609.207	6957.298	58.369	51.5	3.0	NO	0.998	NO	bb
8	8	180114G2_9	Standard	75.000	5.83	56779.543	6679.484	85.006	75.0	-0.0	NO	0.998	NO	bd
9	9	180114G2_10	Standard	100.000	5.82	75547.563	6545.588	115.418	101.8	1.8	NO	0.998	NO	bb

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Compound name: 13C2-PFHxA

Response Factor: 0.517306

RRF SD: 0.020799, Relative SD: 4.02063

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180114G2_2	Standard	10.000	3.39	3828.283	7270.992	5.265	10.2	1.8	NO		NO	bd
2	2 180114G2_3	Standard	10.000	3.39	3732.242	7137.396	5.229	10.1	1.1	NO		NO	bb
3	3 180114G2_4	Standard	10.000	3.39	3732.909	7332.093	5.091	9.8	-1.6	NO		NO	bb
4	4 180114G2_5	Standard	10.000	3.39	3641.730	7006.645	5.198	10.0	0.5	NO		NO	bb
5	5 180114G2_6	Standard	10.000	3.39	3767.847	6921.691	5.444	10.5	5.2	NO		NO	bb
6	6 180114G2_7	Standard	10.000	3.39	3485.918	7451.987	4.678	9.0	-9.6	NO		NO	bd
7	7 180114G2_8	Standard	10.000	3.39	3633.532	6957.298	5.223	10.1	1.0	NO		NO	bb
8	8 180114G2_9	Standard	10.000	3.39	3508.206	6679.484	5.252	10.2	1.5	NO		NO	bb
9	9 180114G2_10	Standard	10.000	3.39	3389.493	6545.588	5.178	10.0	0.1	NO		NO	bb

Compound name: 13C2-PFDA

Response Factor: 0.542593

RRF SD: 0.0343482, Relative SD: 6.33038

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180114G2_2	Standard	10.000	4.98	4152.583	7270.992	5.711	10.5	5.3	NO		NO	bd
2	2 180114G2_3	Standard	10.000	4.98	3676.311	7137.396	5.151	9.5	-5.1	NO		NO	bb
3	3 180114G2_4	Standard	10.000	4.98	3605.385	7332.093	4.917	9.1	-9.4	NO		NO	bb
4	4 180114G2_5	Standard	10.000	4.98	3889.101	7006.645	5.551	10.2	2.3	NO		NO	bd
5	5 180114G2_6	Standard	10.000	4.98	3771.219	6921.691	5.448	10.0	0.4	NO		NO	bb
6	6 180114G2_7	Standard	10.000	4.98	3814.786	7451.987	5.119	9.4	-5.7	NO		NO	bb
7	7 180114G2_8	Standard	10.000	4.98	3643.542	6957.298	5.237	9.7	-3.5	NO		NO	bb
8	8 180114G2_9	Standard	10.000	4.98	3979.337	6679.484	5.958	11.0	9.8	NO		NO	bb
9	9 180114G2_10	Standard	10.000	4.98	3758.124	6545.588	5.741	10.6	5.8	NO		NO	bb

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Compound name: d5-N-EtFOSAA

Response Factor: 1.10203

RRF SD: 0.113923, Relative SD: 10.3376

Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180114G2_2	Standard	40.000	5.23	5534.797	4369.841	50.664	46.0	14.9	NO		NO	bd
2	2 180114G2_3	Standard	40.000	5.23	5589.896	4862.716	45.982	41.7	4.3	NO		NO	bb
3	3 180114G2_4	Standard	40.000	5.23	5039.321	5415.664	37.220	33.8	-15.6	NO		NO	bb
4	4 180114G2_5	Standard	40.000	5.23	6031.322	4762.651	50.655	46.0	14.9	NO		NO	bb
5	5 180114G2_6	Standard	40.000	5.23	5490.659	4945.121	44.413	40.3	0.8	NO		NO	bb
6	6 180114G2_7	Standard	40.000	5.23	4888.955	4633.480	42.205	38.3	-4.3	NO		NO	bb
7	7 180114G2_8	Standard	40.000	5.23	5208.773	4688.595	44.438	40.3	0.8	NO		NO	bb
8	8 180114G2_9	Standard	40.000	5.22	4828.757	4824.405	40.036	36.3	-9.2	NO		NO	bb
9	9 180114G2_10	Standard	40.000	5.23	4622.573	4496.842	41.118	37.3	-6.7	NO		NO	bb

Compound name: 13C2-PFOA

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180114G2_2	Standard	10.000	4.33	7270.992	7270.992	10.000	10.0	0.0	NO		NO	bd
2	2 180114G2_3	Standard	10.000	4.33	7137.396	7137.396	10.000	10.0	0.0	NO		NO	bb
3	3 180114G2_4	Standard	10.000	4.33	7332.093	7332.093	10.000	10.0	0.0	NO		NO	bd
4	4 180114G2_5	Standard	10.000	4.34	7006.645	7006.645	10.000	10.0	0.0	NO		NO	bb
5	5 180114G2_6	Standard	10.000	4.34	6921.691	6921.691	10.000	10.0	0.0	NO		NO	bb
6	6 180114G2_7	Standard	10.000	4.34	7451.987	7451.987	10.000	10.0	0.0	NO		NO	bb
7	7 180114G2_8	Standard	10.000	4.33	6957.298	6957.298	10.000	10.0	0.0	NO		NO	bd
8	8 180114G2_9	Standard	10.000	4.34	6679.484	6679.484	10.000	10.0	0.0	NO		NO	bb
9	9 180114G2_10	Standard	10.000	4.34	6545.588	6545.588	10.000	10.0	0.0	NO		NO	bb

Dataset: U:\G1.PRO\Results\2018\180114G2\180114G2-CRV.qld

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Printed: Monday, January 15, 2018 10:15:46 Pacific Standard Time

Compound name: 13C4-PFOS

Response Factor: 1

RRF SD: 1.24127e-016, Relative SD: 1.24127e-014

Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180114G2_2	Standard	28.700	4.74	9293.236	9293.236	28.700	28.7	0.0	NO		NO	bb
2	2 180114G2_3	Standard	28.700	4.74	8633.023	8633.023	28.700	28.7	0.0	NO		NO	bb
3	3 180114G2_4	Standard	28.700	4.74	9301.095	9301.095	28.700	28.7	0.0	NO		NO	bb
4	4 180114G2_5	Standard	28.700	4.74	9846.296	9846.296	28.700	28.7	0.0	NO		NO	bb
5	5 180114G2_6	Standard	28.700	4.74	8997.394	8997.394	28.700	28.7	0.0	NO		NO	bb
6	6 180114G2_7	Standard	28.700	4.74	8921.570	8921.570	28.700	28.7	0.0	NO		NO	bb
7	7 180114G2_8	Standard	28.700	4.74	8362.585	8362.585	28.700	28.7	0.0	NO		NO	bb
8	8 180114G2_9	Standard	28.700	4.74	8335.439	8335.439	28.700	28.7	0.0	NO		NO	bb
9	9 180114G2_10	Standard	28.700	4.74	8426.012	8426.012	28.700	28.7	0.0	NO		NO	bb

Compound name: d3-N-MeFOSAA

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180114G2_2	Standard	40.000	5.10	4369.841	4369.841	40.000	40.0	0.0	NO		NO	bb
2	2 180114G2_3	Standard	40.000	5.10	4862.716	4862.716	40.000	40.0	0.0	NO		NO	bb
3	3 180114G2_4	Standard	40.000	5.10	5415.664	5415.664	40.000	40.0	0.0	NO		NO	bb
4	4 180114G2_5	Standard	40.000	5.10	4762.651	4762.651	40.000	40.0	0.0	NO		NO	bd
5	5 180114G2_6	Standard	40.000	5.10	4945.121	4945.121	40.000	40.0	0.0	NO		NO	bb
6	6 180114G2_7	Standard	40.000	5.10	4633.480	4633.480	40.000	40.0	0.0	NO		NO	bd
7	7 180114G2_8	Standard	40.000	5.10	4688.595	4688.595	40.000	40.0	0.0	NO		NO	bb
8	8 180114G2_9	Standard	40.000	5.10	4824.405	4824.405	40.000	40.0	0.0	NO		NO	bd
9	9 180114G2_10	Standard	40.000	5.10	4496.842	4496.842	40.000	40.0	0.0	NO		NO	bb

Dataset: U:\G1.PRO\Results\2018\180114G2\180114G2-CRV.qld

Last Altered: Monday, January 15, 2018 10:11:44 Pacific Standard Time

Printed: Monday, January 15, 2018 10:16:08 Pacific Standard Time

Method: U:\G1.PRO\MethDB\PFAS_DW_L14_1214.mdb 11 Jan 2018 11:50:37

Calibration: U:\G1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180114G2_2, Date: 14-Jan-2018, Time: 17:15:00, ID: ST180114G2-1 PFC CS-3 537 18A1201, Description: PFC CS-3 537 18A1201

	# Name	CoD	CoD Flag	%RSD
1	1 PFBS	0.9997	NO	
2	2 PFHxA	0.9983	NO	
3	3 PFHpA	0.9993	NO	
4	4 PFHxS	0.9984	NO	
5	5 PFOA	0.9983	NO	
6	6 PFNA	0.9990	NO	
7	7 PFOS	0.9984	NO	
8	8 PFDA	0.9989	NO	
9	9 N-MeFOSAA	0.9962	NO	
10	10 N-EtFOSAA	0.9980	NO	
11	11 PFUnA	0.9935	NO	
12	12 PFDoA	0.9975	NO	
13	13 PFTTrDA	0.9991	NO	
14	14 PFTeDA	0.9983	NO	
15	15 13C2-PFHxA		NO	4.021
16	16 13C2-PFDA		NO	6.330
17	17 d5-N-EtFOSAA		NO	10.338
18	18 13C2-PFOA		NO	0.000
19	19 13C4-PFOS		NO	0.000
20	20 d3-N-MeFOSAA		NO	0.000

Dataset: Untitled

Last Altered: Monday, January 15, 2018 10:23:18 Pacific Standard Time

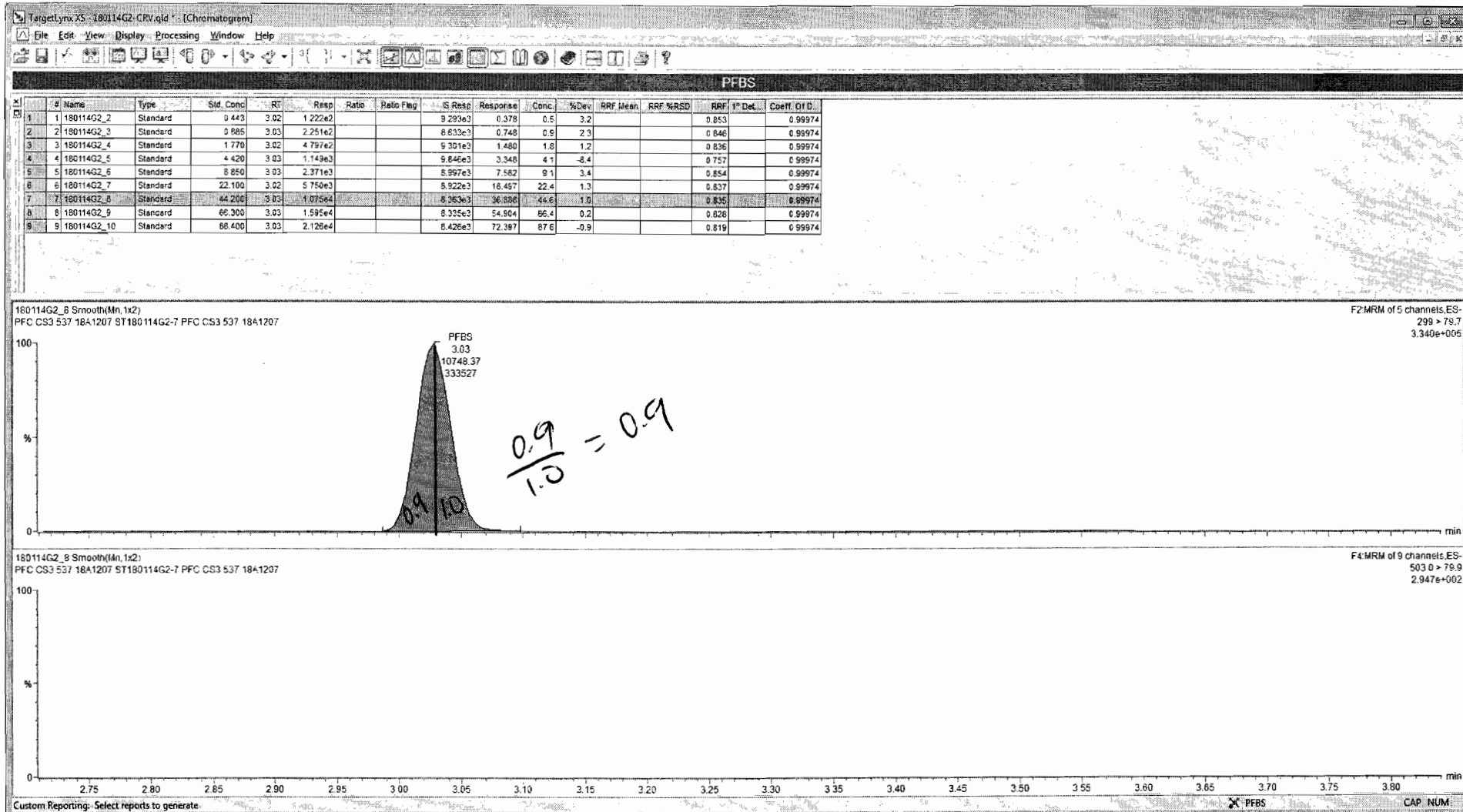
Printed: Monday, January 15, 2018 10:23:42 Pacific Standard Time

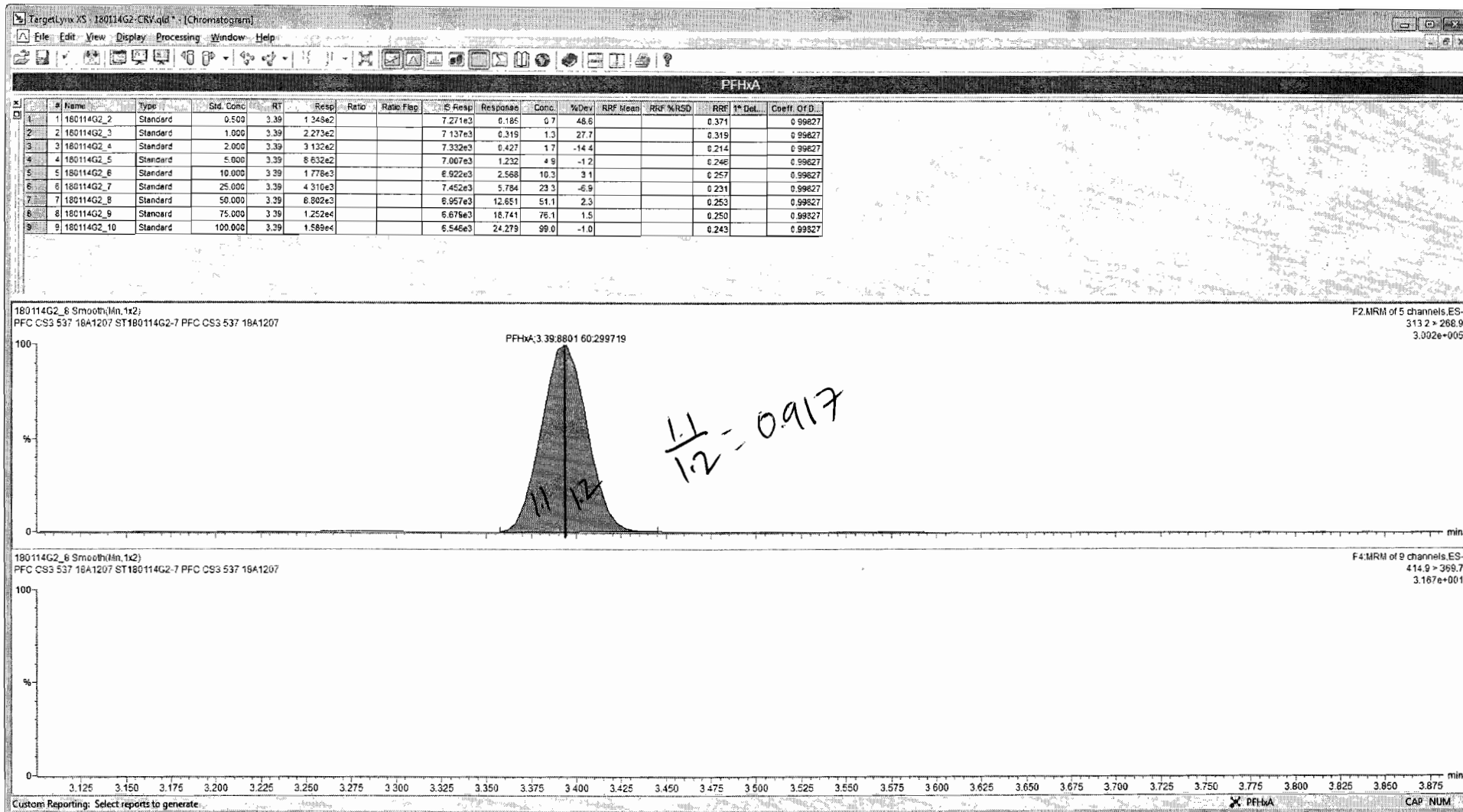
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Calibration: U:\G1.PRO\CurveDB\IC18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	180114G2_1	IPA	14-Jan-18	17:02:18
2	180114G2_2	ST180114G2-1 PFC CS-3 537 18A1201	14-Jan-18	17:15:00
3	180114G2_3	ST180114G2-2 PFC CS-2 537 18A1202	14-Jan-18	17:27:26
4	180114G2_4	ST180114G2-3 PFC CS-1 537 18A1203	14-Jan-18	17:39:52
5	180114G2_5	ST180114G2-4 PFC CS0 537 18A1204	14-Jan-18	17:52:19
6	180114G2_6	ST180114G2-5 PFC CS1 537 18A1205	14-Jan-18	18:04:46
7	180114G2_7	ST180114G2-6 PFC CS2 537 18A1206	14-Jan-18	18:17:14
8	180114G2_8	ST180114G2-7 PFC CS3 537 18A1207	14-Jan-18	18:29:38
9	180114G2_9	ST180114G2-8 PFC CS4 537 18A1208	14-Jan-18	18:42:03
10	180114G2_10	ST180114G2-9 PFC CS5 537 18A1209	14-Jan-18	18:54:27
11	180114G2_11	IPA	14-Jan-18	19:06:53
12	180114G2_12	ICV180114G2-1 PFC ICV 537 18A1210	14-Jan-18	19:19:20





Quantify Compound Summary Report

HIGH 7451.987 RPD

LOW 6545.588 12.95

Compound 18: 13C2-PFOA

ID	Name	Type	Std. Conc	RT	Area	IS Area	Response	Primary Flags
1 ST180114G2-1 PFC CS-3 537 18A1201	180114G2_Standard		10	4.33	7270.992	7270.99	10	bd
2 ST180114G2-2 PFC CS-2 537 18A1202	180114G2_Standard		10	4.33	7137.396	7137.40	10	bb
3 ST180114G2-3 PFC CS-1 537 18A1203	180114G2_Standard		10	4.33	7332.093	7332.09	10	bd
4 ST180114G2-4 PFC CS0 537 18A1204	180114G2_Standard		10	4.34	7006.645	7006.65	10	bb
5 ST180114G2-5 PFC CS1 537 18A1205	180114G2_Standard		10	4.34	6921.691	6921.69	10	bb
6 ST180114G2-6 PFC CS2 537 18A1206	180114G2_Standard		10	4.34	7451.987	7451.99	10	bb
7 ST180114G2-7 PFC CS3 537 18A1207	180114G2_Standard		10	4.33	6957.298	6957.30	10	bd
8 ST180114G2-8 PFC CS4 537 18A1208	180114G2_Standard		10	4.34	6679.484	6679.48	10	bb
9 ST180114G2-9 PFC CS5 537 18A1209	180114G2_Standard		10	4.34	6545.588	6545.59	10	bb

AVERAGE
7033.69

Printed Mon Jan 15 07:46:06 2018

HIGH 9846.30 RPD

LOW 8335.44 16.62

Compound 19: 13C4-PFOS

ID	Name	Type	Std. Conc	RT	Area	IS Area	Response	Primary Flags
1 ST180114G2-1 PFC CS-3 537 18A1201	180114G2_Standard		28.7	4.74	9293.236	9293.24	28.7	bb
2 ST180114G2-2 PFC CS-2 537 18A1202	180114G2_Standard		28.7	4.74	8633.023	8633.02	28.7	bb
3 ST180114G2-3 PFC CS-1 537 18A1203	180114G2_Standard		28.7	4.74	9301.095	9301.10	28.7	bb
4 ST180114G2-4 PFC CS0 537 18A1204	180114G2_Standard		28.7	4.74	9846.296	9846.30	28.7	bb
5 ST180114G2-5 PFC CS1 537 18A1205	180114G2_Standard		28.7	4.74	8997.394	8997.39	28.7	bb
6 ST180114G2-6 PFC CS2 537 18A1206	180114G2_Standard		28.7	4.74	8921.57	8921.57	28.7	bb
7 ST180114G2-7 PFC CS3 537 18A1207	180114G2_Standard		28.7	4.74	8362.585	8362.59	28.7	bb
8 ST180114G2-8 PFC CS4 537 18A1208	180114G2_Standard		28.7	4.74	8335.439	8335.44	28.7	bb
9 ST180114G2-9 PFC CS5 537 18A1209	180114G2_Standard		28.7	4.74	8426.012	8426.01	28.7	bb

AVERAGE
8901.85

Printed Mon Jan 15 07:46:31 2018

HIGH 5415.66 RPD
LOW 4496.84 18.54

Compound 20: d3-N-MeFOSAA

ID	Name	Type	Std. Conc	RT	Area	IS Area	Response	Primary Flags
1 ST180114G2-1 PFC CS-3 537 18A1201	180114G2_	Standard	40	5.1	4369.841	4369.84	40	bbX
2 ST180114G2-2 PFC CS-2 537 18A1202	180114G2_	Standard	40	5.1	4862.716	4862.72	40	bb
3 ST180114G2-3 PFC CS-1 537 18A1203	180114G2_	Standard	40	5.1	5415.664	5415.66	40	bb
4 ST180114G2-4 PFC CS0 537 18A1204	180114G2_	Standard	40	5.1	4762.651	4762.65	40	bd
5 ST180114G2-5 PFC CS1 537 18A1205	180114G2_	Standard	40	5.1	4945.121	4945.12	40	bb
6 ST180114G2-6 PFC CS2 537 18A1206	180114G2_	Standard	40	5.1	4633.48	4633.48	40	bd
7 ST180114G2-7 PFC CS3 537 18A1207	180114G2_	Standard	40	5.1	4688.595	4688.60	40	bb
8 ST180114G2-8 PFC CS4 537 18A1208	180114G2_	Standard	40	5.1	4824.405	4824.41	40	bd
9 ST180114G2-9 PFC CS5 537 18A1209	180114G2_	Standard	40	5.1	4496.842	4496.84	40	bb
					AVERAGE			
					4828.68			

Dataset: U:\G1.PRO\Results\2018\180114G2\180114G2-CRV.qld

Last Altered: Monday, January 15, 2018 10:11:44 Pacific Standard Time

Printed: Monday, January 15, 2018 10:13:02 Pacific Standard Time

Method: U:\G1.PRO\MethDB\PFAS_DW_L14_1214.mdb 11 Jan 2018 11:50:37

Calibration: U:\G1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

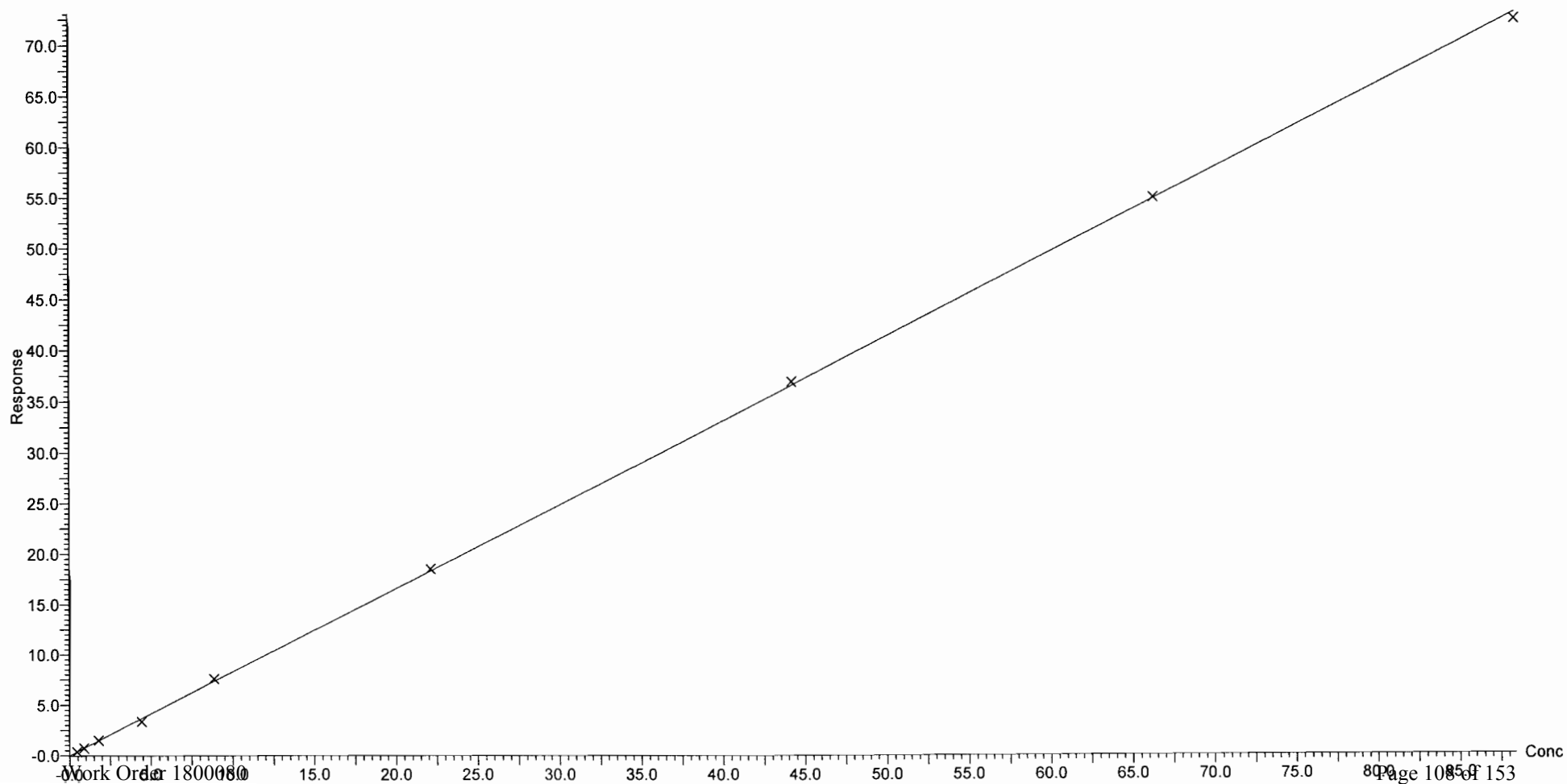
Compound name: PFBS

Coefficient of Determination: $R^2 = 0.999737$

Calibration curve: $0.826574 * x$

Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\G1.PRO\Results\2018\180114G2\180114G2-CRV.qld

Last Altered: Monday, January 15, 2018 10:11:44 Pacific Standard Time

Printed: Monday, January 15, 2018 10:13:02 Pacific Standard Time

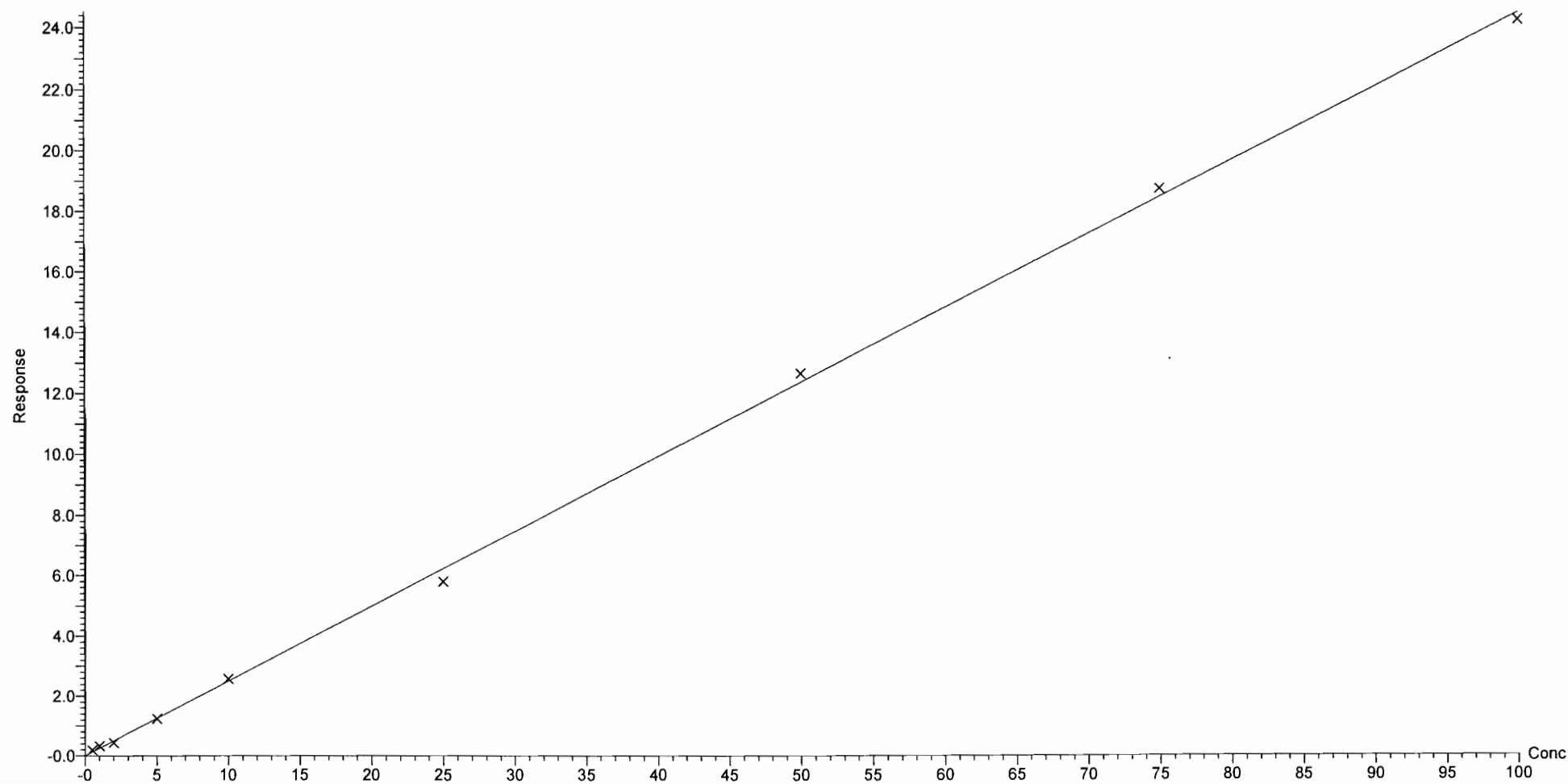
Compound name: PFHxA

Coefficient of Determination: $R^2 = 0.998269$

Calibration curve: $-4.36355e-005 * x^2 + 0.249572 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\G1.PRO\Results\2018\180114G2\180114G2-CRV.qld

Last Altered: Monday, January 15, 2018 10:11:44 Pacific Standard Time

Printed: Monday, January 15, 2018 10:13:02 Pacific Standard Time

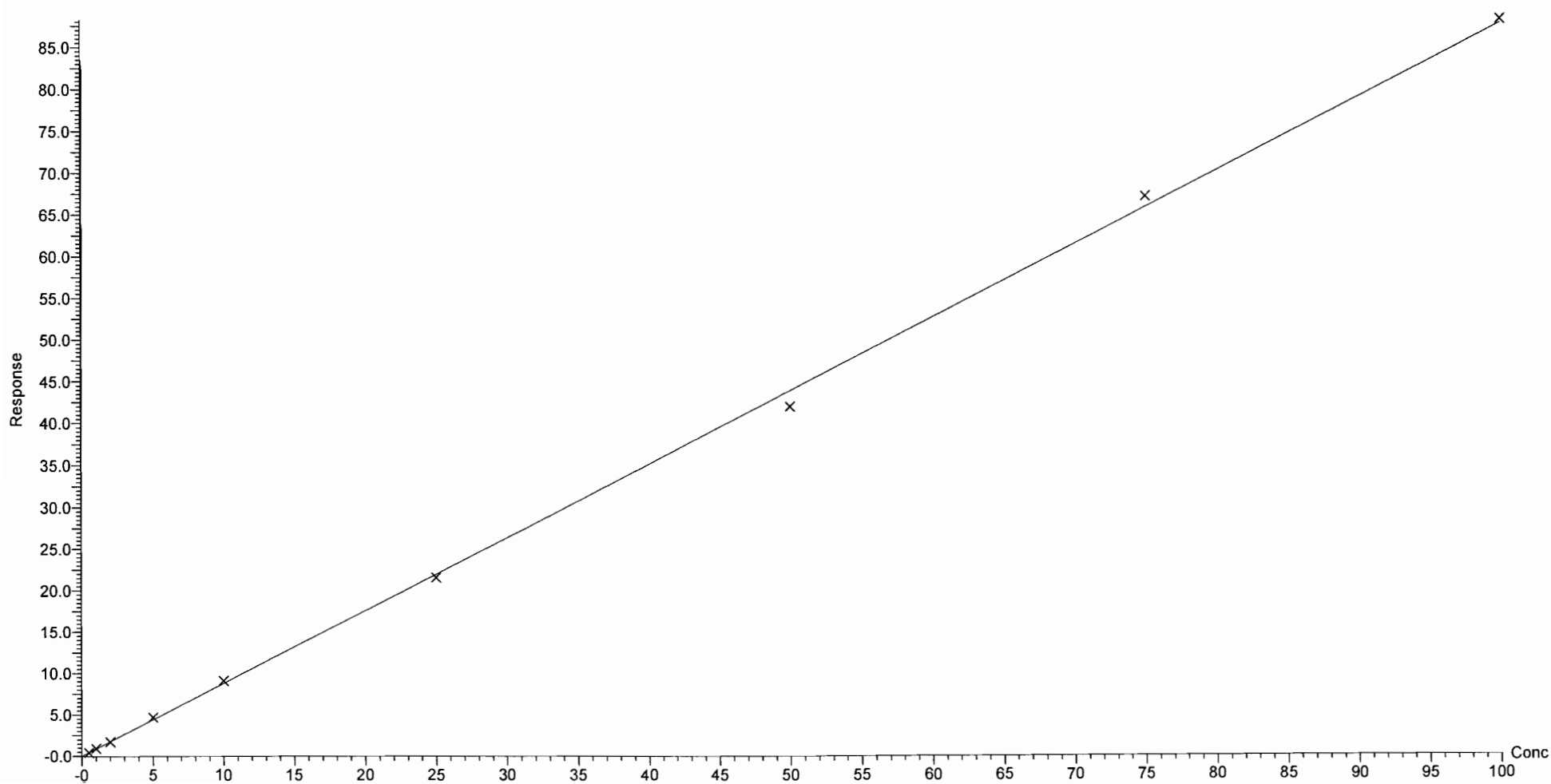
Compound name: PFHpA

Coefficient of Determination: $R^2 = 0.999308$

Calibration curve: $0.877756 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\G1.PRO\Results\2018\180114G2\180114G2-CRV.qld

Last Altered: Monday, January 15, 2018 10:11:44 Pacific Standard Time

Printed: Monday, January 15, 2018 10:13:02 Pacific Standard Time

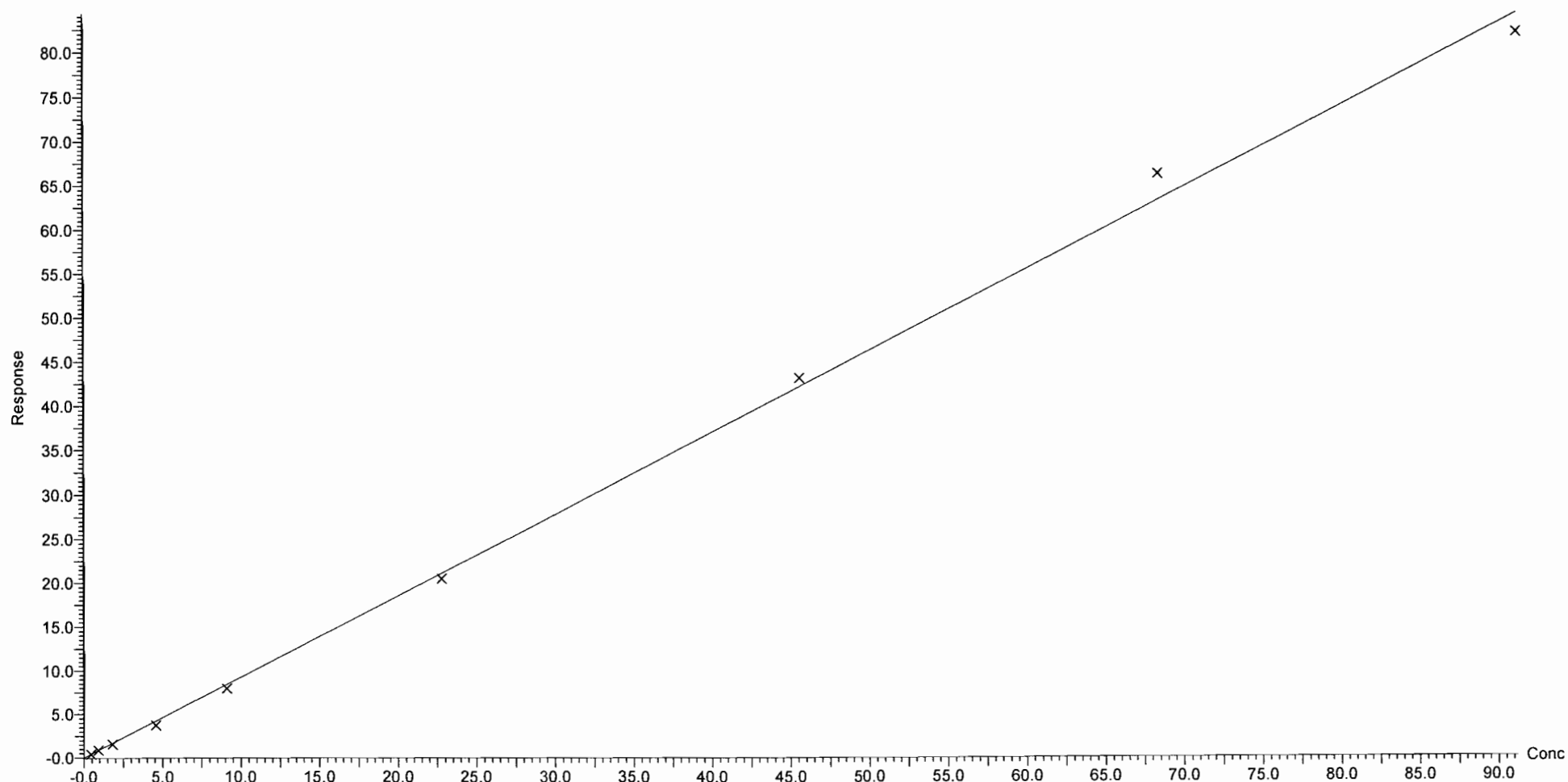
Compound name: PFHxS

Coefficient of Determination: $R^2 = 0.998405$

Calibration curve: $0.924667 * x$

Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\G1.PRO\Results\2018\180114G2\180114G2-CRV.qld

Last Altered: Monday, January 15, 2018 10:11:44 Pacific Standard Time

Printed: Monday, January 15, 2018 10:13:02 Pacific Standard Time

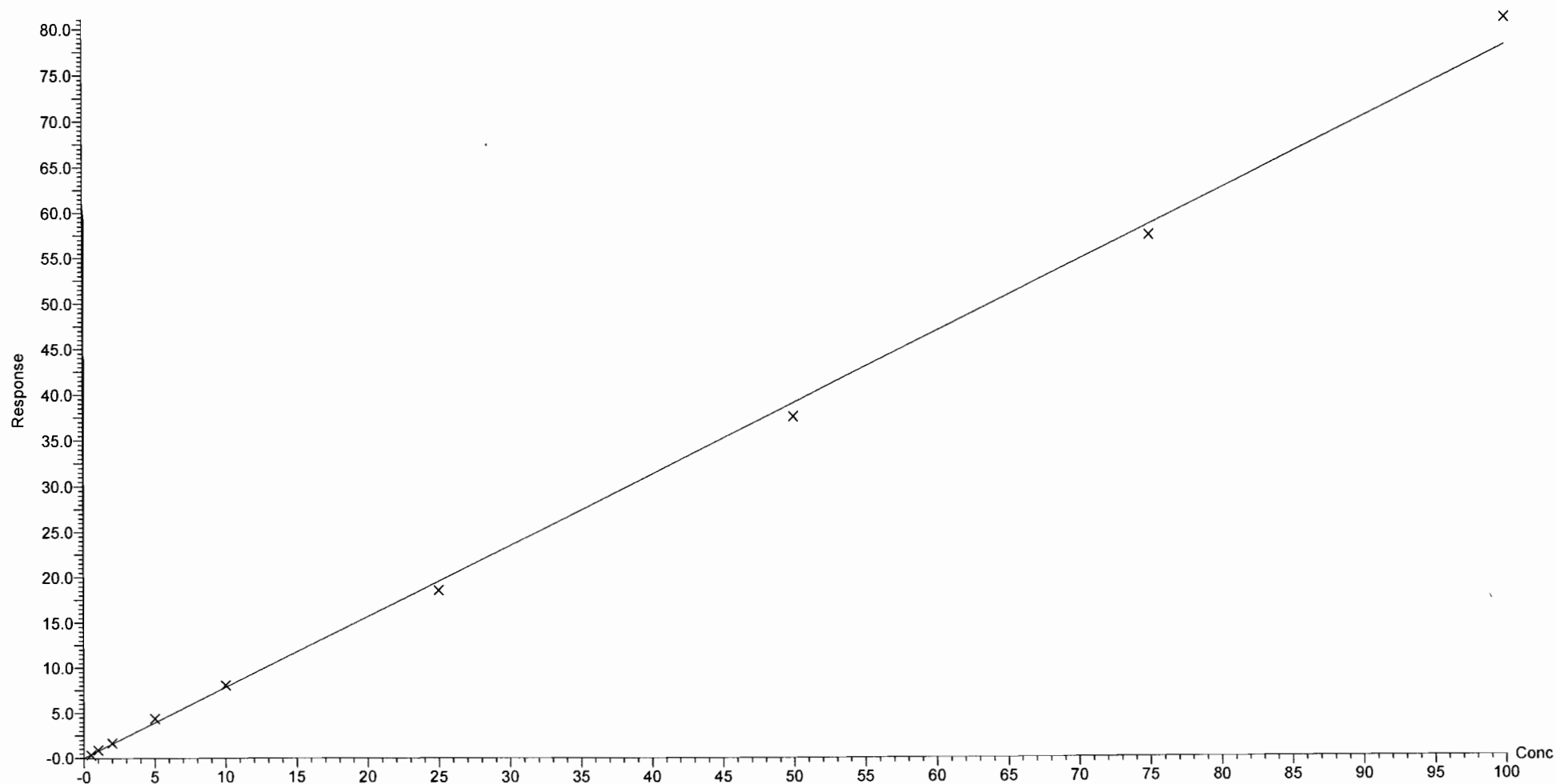
Compound name: PFOA

Coefficient of Determination: $R^2 = 0.998287$

Calibration curve: $0.781315 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\G1.PRO\Results\2018\180114G2\180114G2-CRV.qld

Last Altered: Monday, January 15, 2018 10:11:44 Pacific Standard Time

Printed: Monday, January 15, 2018 10:13:02 Pacific Standard Time

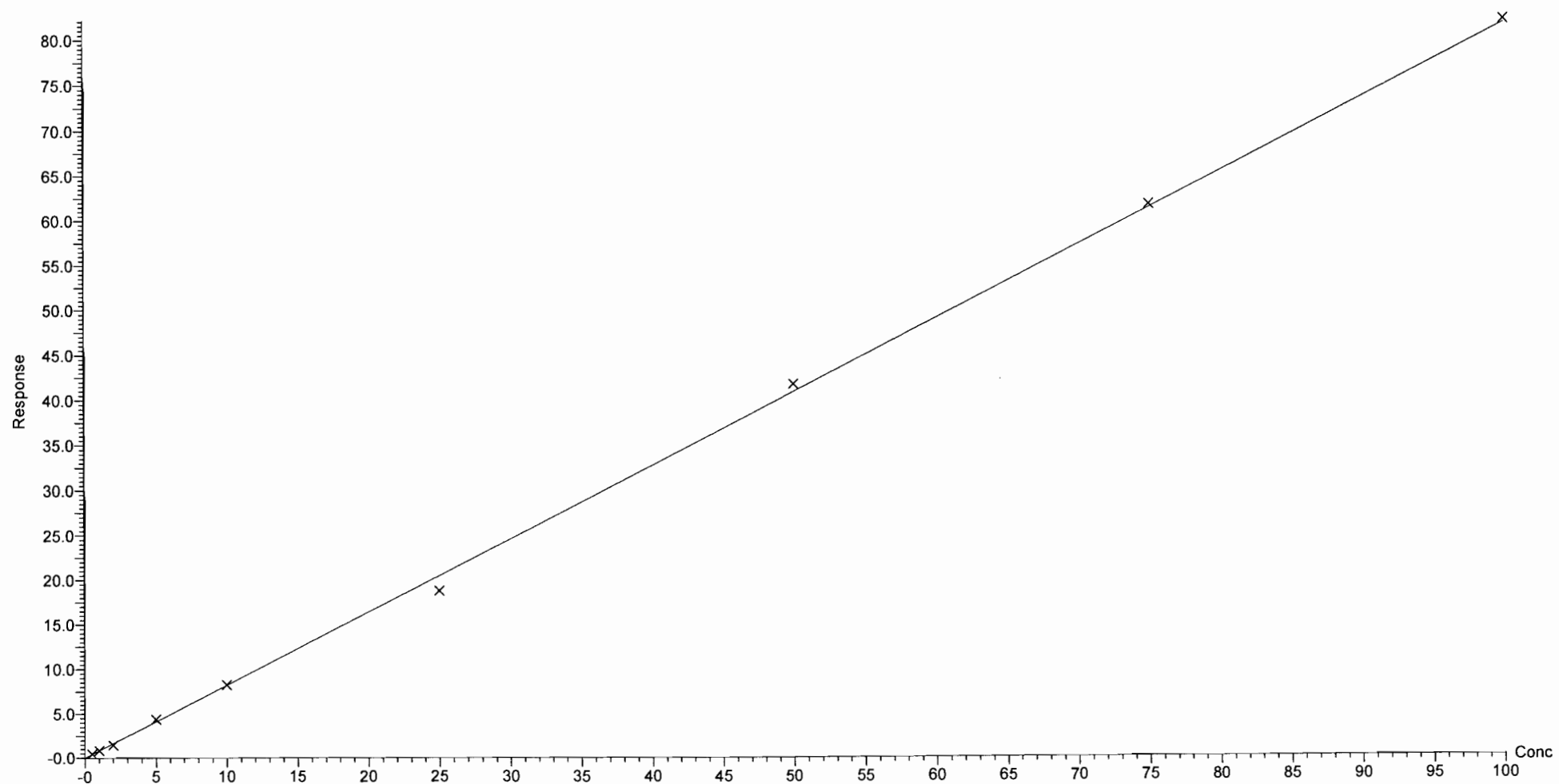
Compound name: PFNA

Coefficient of Determination: $R^2 = 0.998977$

Calibration curve: $0.817469 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: $1/x$, Axis trans: None



Dataset: U:\G1.PRO\Results\2018\180114G2\180114G2-CRV.qld

Last Altered: Monday, January 15, 2018 10:11:44 Pacific Standard Time

Printed: Monday, January 15, 2018 10:13:02 Pacific Standard Time

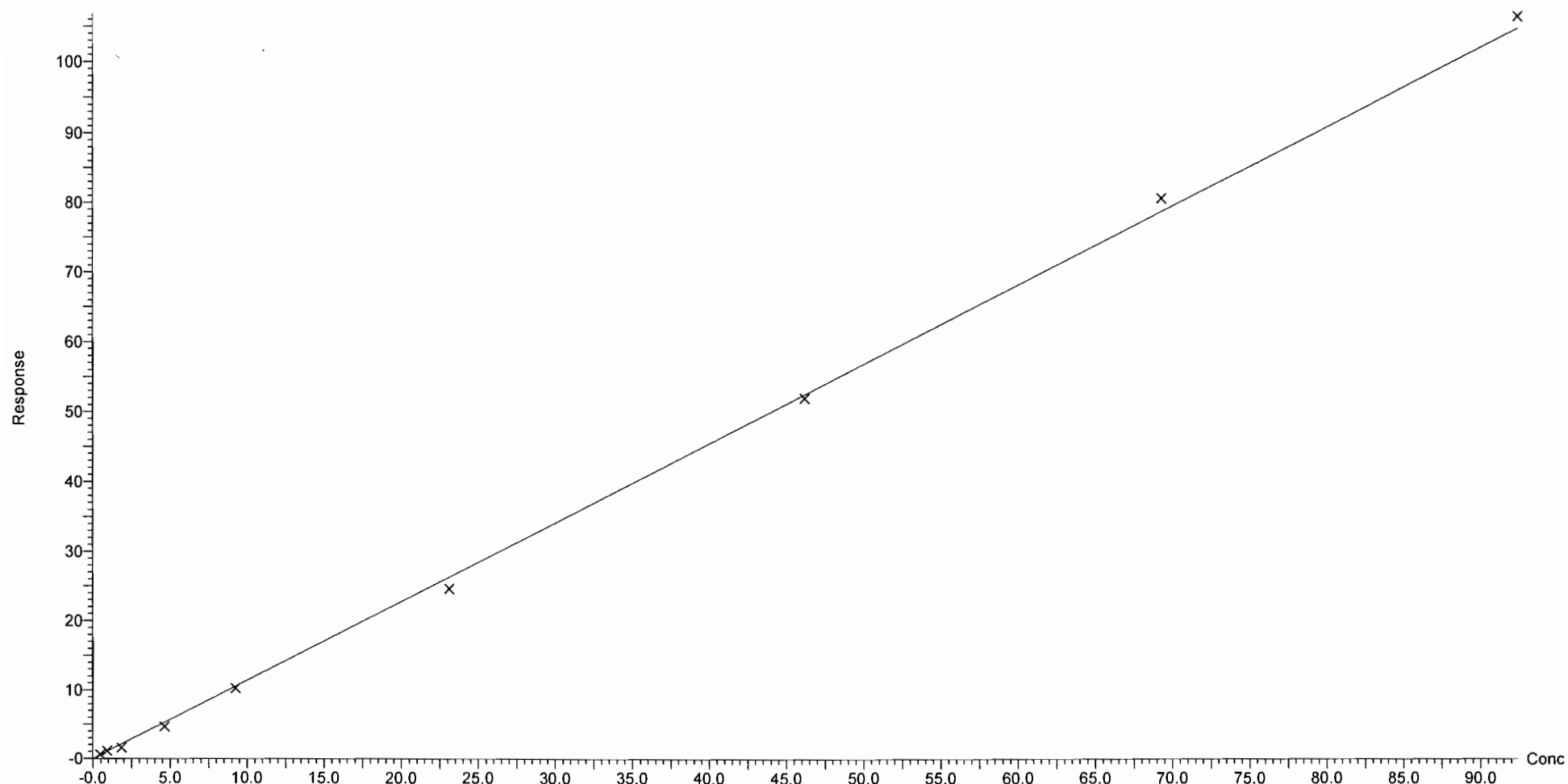
Compound name: PFOS

Coefficient of Determination: $R^2 = 0.998384$

Calibration curve: $1.13681 * x$

Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\G1.PRO\Results\2018\180114G2\180114G2-CRV.qld

Last Altered: Monday, January 15, 2018 10:11:44 Pacific Standard Time

Printed: Monday, January 15, 2018 10:13:02 Pacific Standard Time

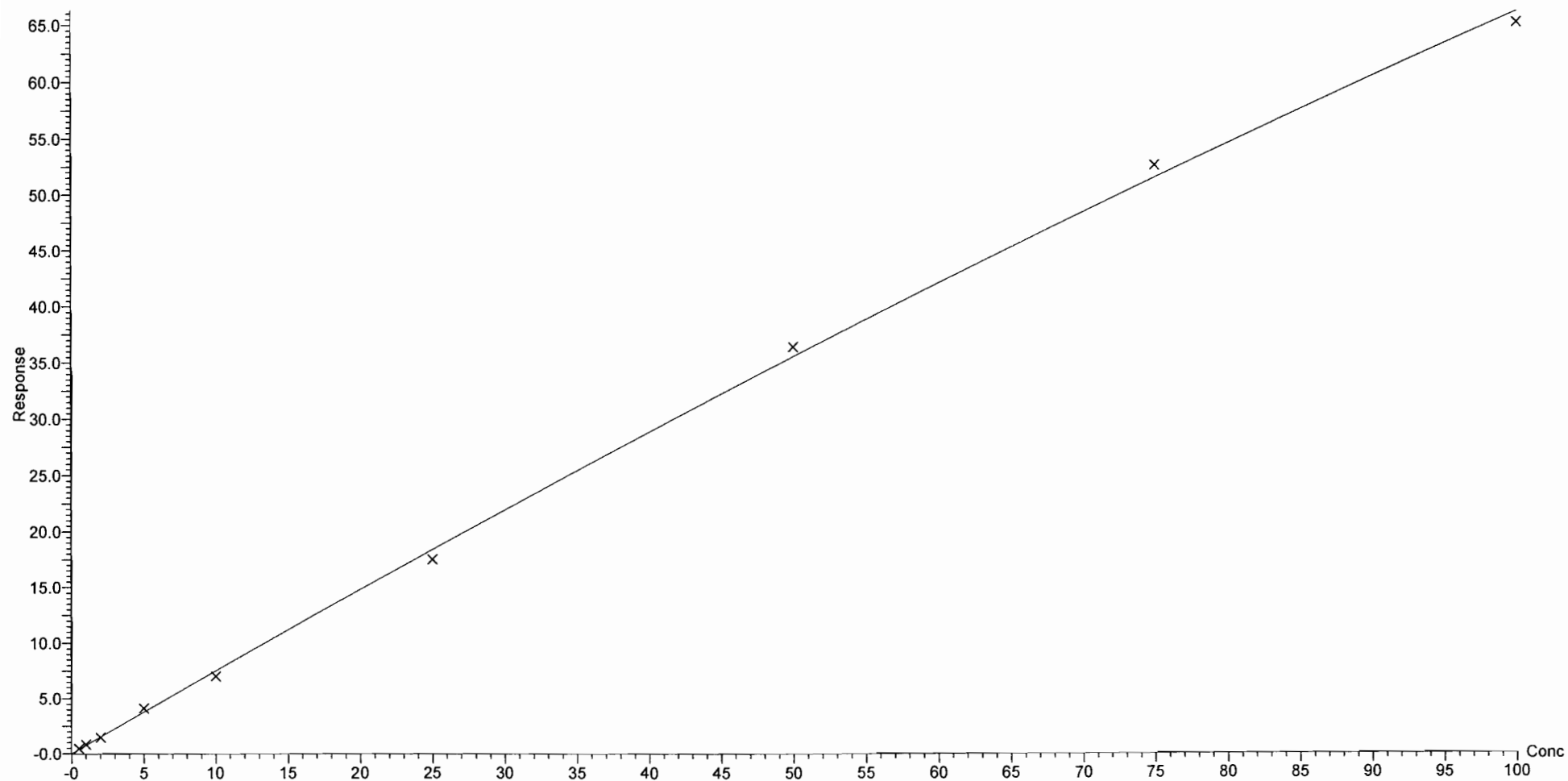
Compound name: PFDA

Coefficient of Determination: $R^2 = 0.998859$

Calibration curve: $-0.000966258 * x^2 + 0.759574 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\G1.PRO\Results\2018\180114G2\180114G2-CRV.qld

Last Altered: Monday, January 15, 2018 10:11:44 Pacific Standard Time

Printed: Monday, January 15, 2018 10:13:02 Pacific Standard Time

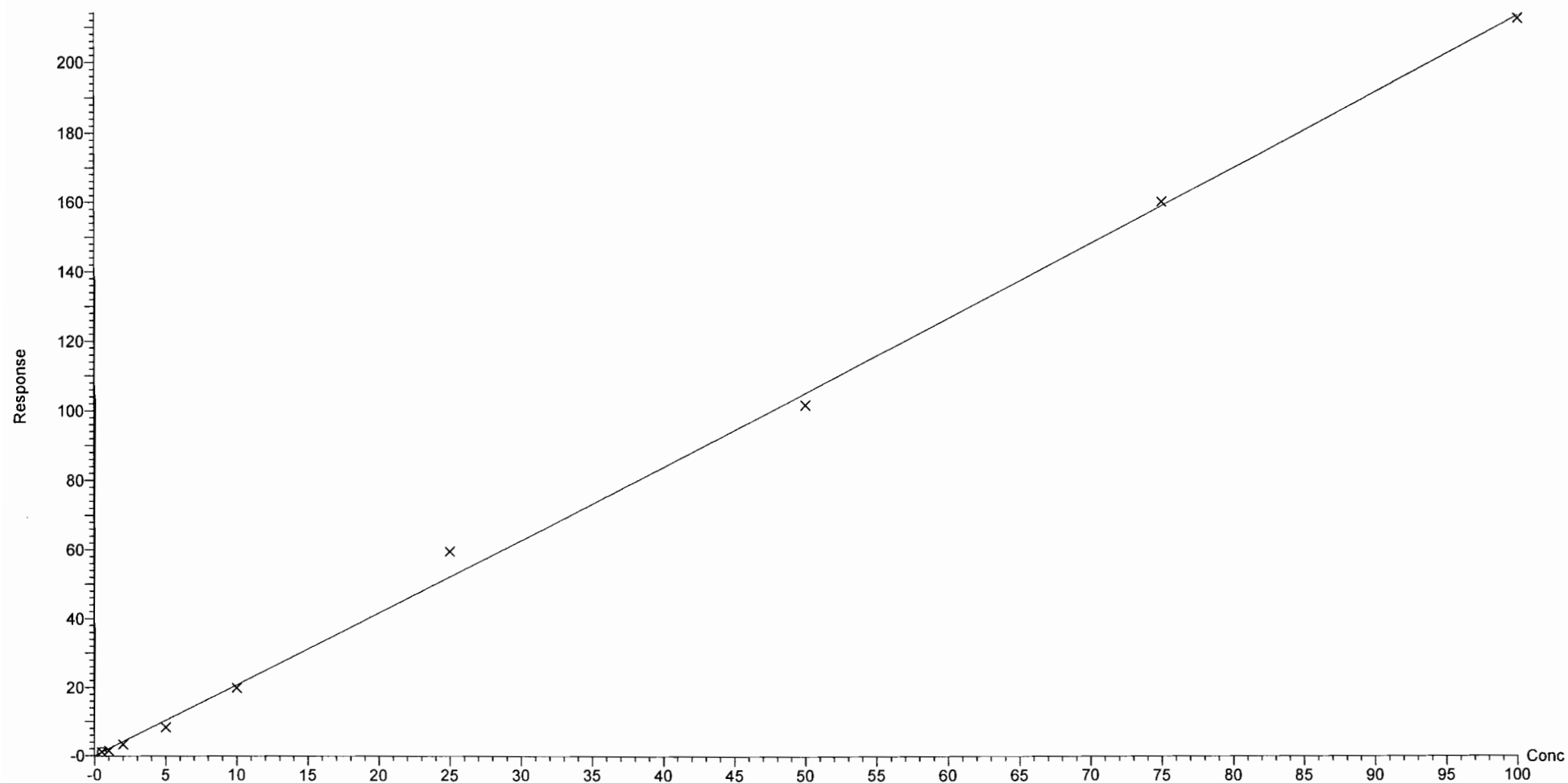
Compound name: N-MeFOSAA

Coefficient of Determination: $R^2 = 0.996181$

Calibration curve: $0.000749907 * x^2 + 2.06632 * x$

Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)

Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\G1.PRO\Results\2018\180114G2\180114G2-CRV.qld

Last Altered: Monday, January 15, 2018 10:11:44 Pacific Standard Time

Printed: Monday, January 15, 2018 10:13:02 Pacific Standard Time

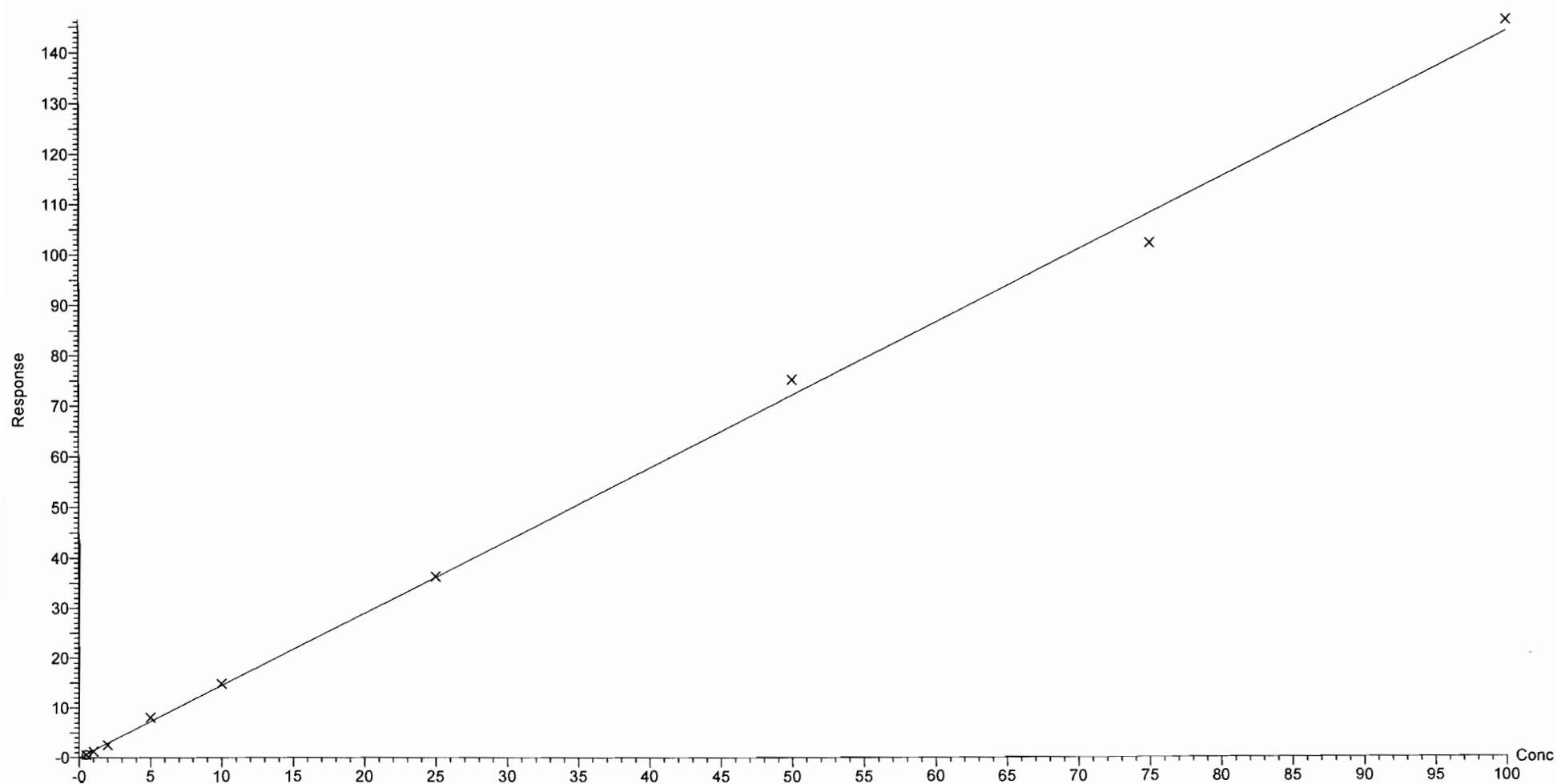
Compound name: N-EtFOSAA

Coefficient of Determination: $R^2 = 0.997950$

Calibration curve: $1.44307 * x$

Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\G1.PRO\Results\2018\180114G2\180114G2-CRV.qld

Last Altered: Monday, January 15, 2018 10:11:44 Pacific Standard Time

Printed: Monday, January 15, 2018 10:13:02 Pacific Standard Time

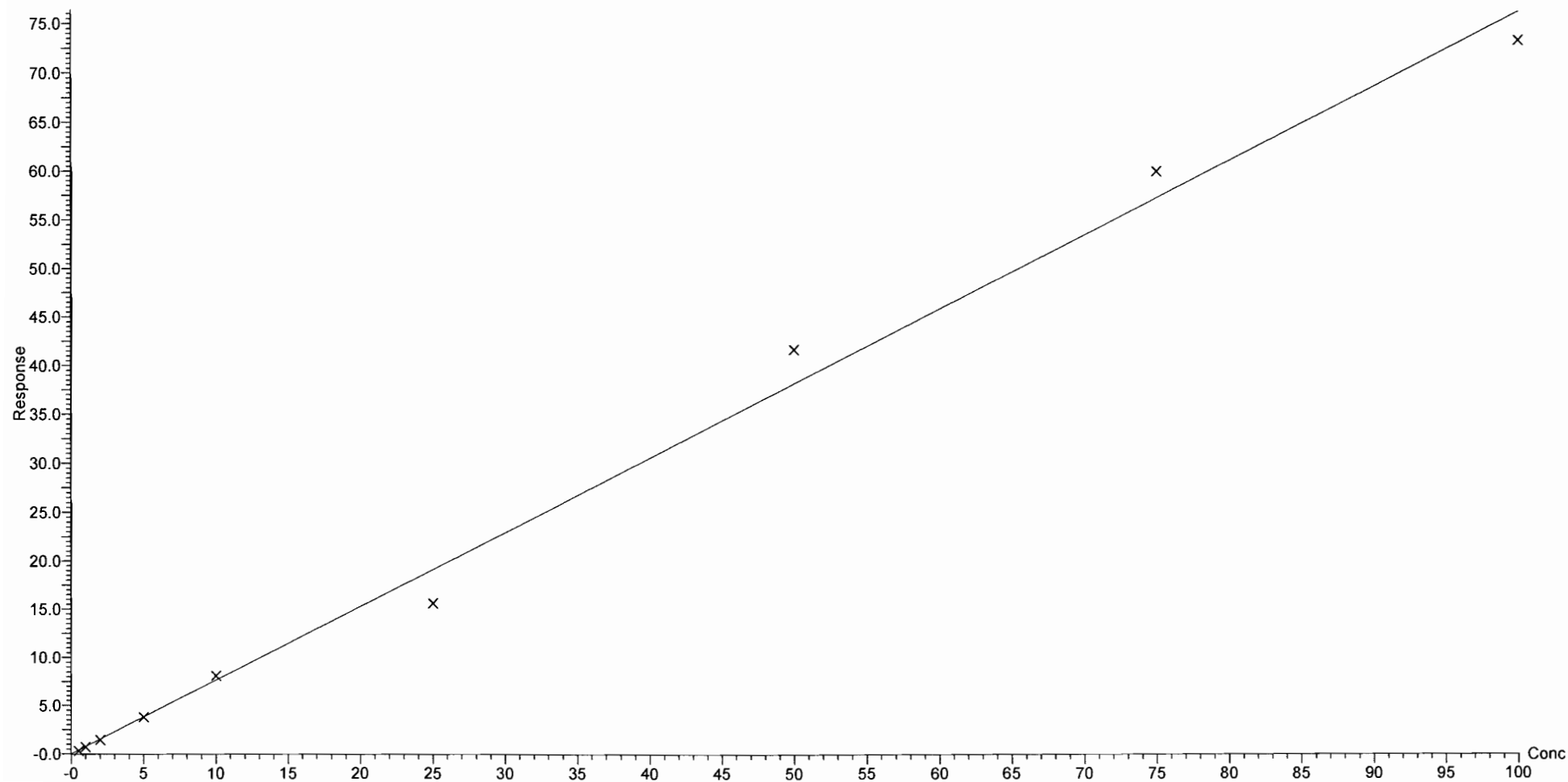
Compound name: PFUnA

Coefficient of Determination: $R^2 = 0.993491$

Calibration curve: $0.76368 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: $1/x$, Axis trans: None



Dataset: U:\G1.PRO\Results\2018\180114G2\180114G2-CRV.qld

Last Altered: Monday, January 15, 2018 10:11:44 Pacific Standard Time

Printed: Monday, January 15, 2018 10:13:02 Pacific Standard Time

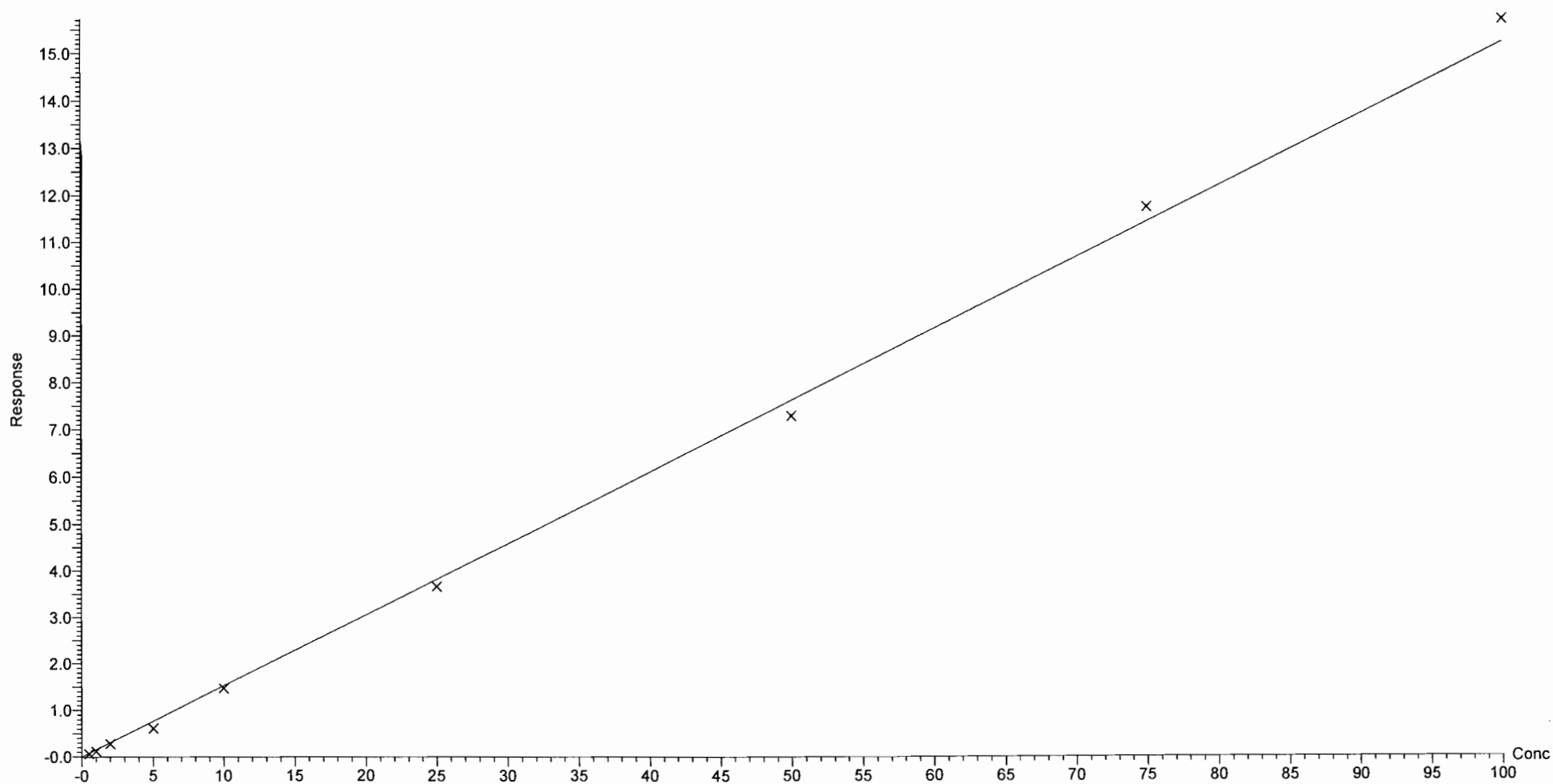
Compound name: PFDoA

Coefficient of Determination: $R^2 = 0.997497$

Calibration curve: $0.152407 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\G1.PRO\Results\2018\180114G2\180114G2-CRV.qld

Last Altered: Monday, January 15, 2018 10:11:44 Pacific Standard Time

Printed: Monday, January 15, 2018 10:13:02 Pacific Standard Time

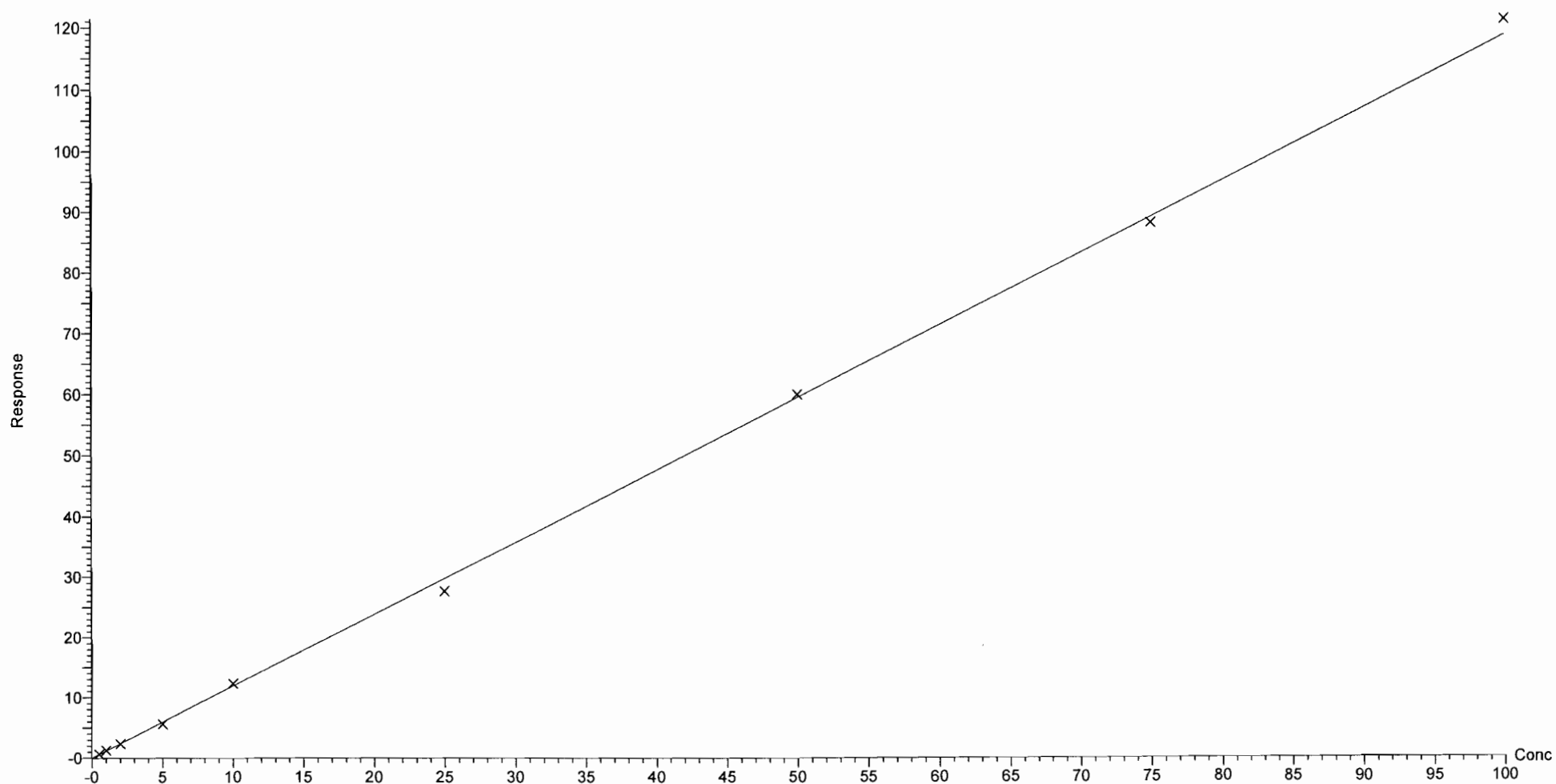
Compound name: PFTrDA

Coefficient of Determination: $R^2 = 0.999127$

Calibration curve: $1.18882 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: U:\G1.PRO\Results\2018\180114G2\180114G2-CRV.qld

Last Altered: Monday, January 15, 2018 10:11:44 Pacific Standard Time

Printed: Monday, January 15, 2018 10:13:02 Pacific Standard Time

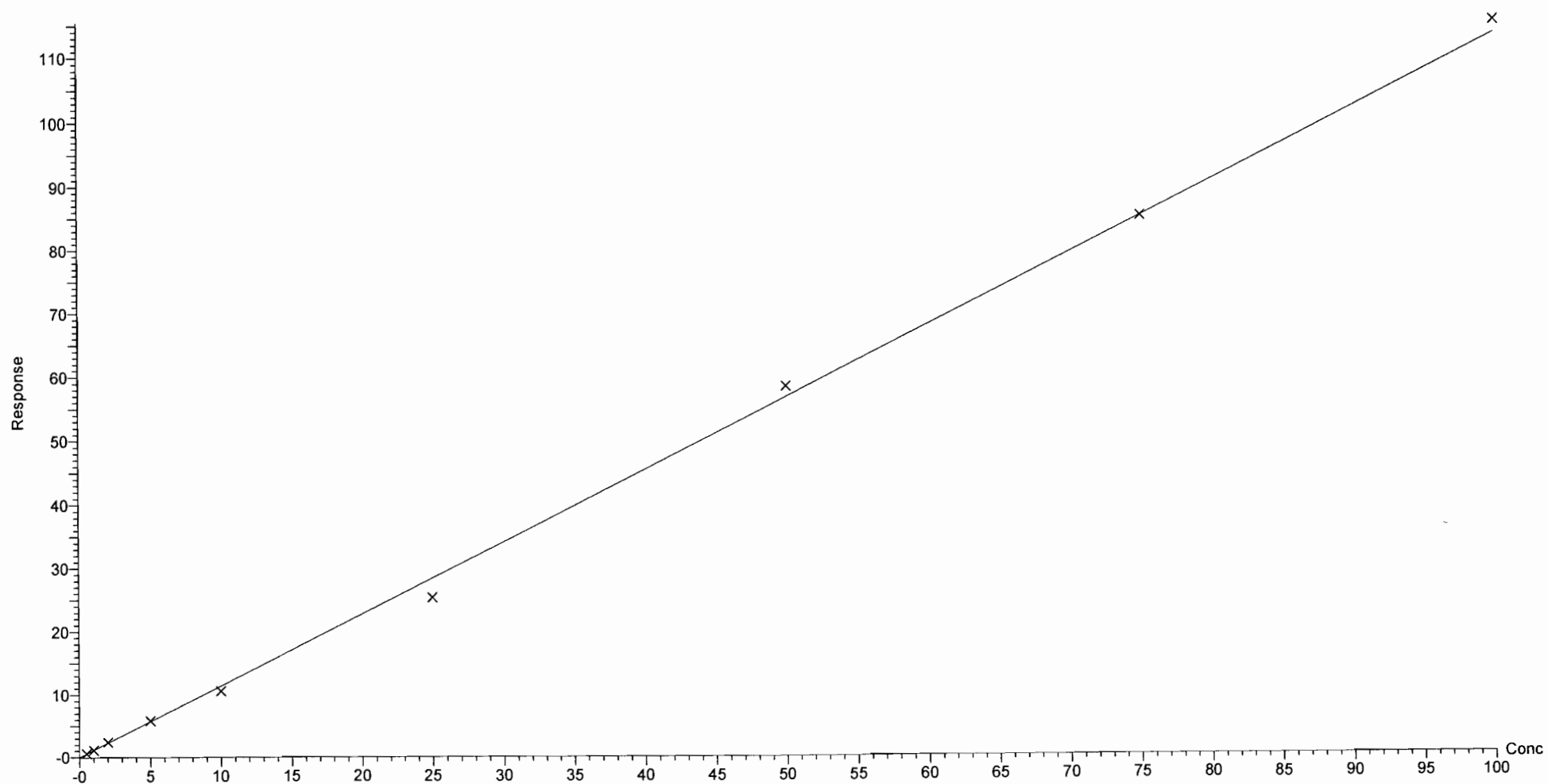
Compound name: PFTeDA

Coefficient of Determination: $R^2 = 0.998282$

Calibration curve: $1.13384 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: $1/x$, Axis trans: None



Dataset: U:\G1.PRO\Results\2018\180114G2\180114G2-CRV.qld

Last Altered: Monday, January 15, 2018 10:11:44 Pacific Standard Time

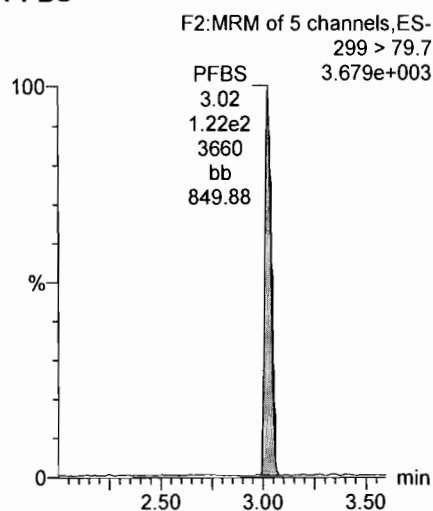
Printed: Monday, January 15, 2018 10:12:39 Pacific Standard Time

Method: U:\G1.PRO\MethDB\PFAS_DW_L14_1214.mdb 11 Jan 2018 11:50:37

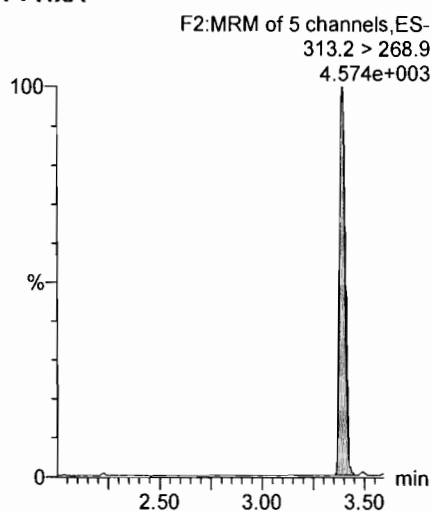
Calibration: U:\G1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180114G2_2, Date: 14-Jan-2018, Time: 17:15:00, ID: ST180114G2-1 PFC CS-3 537 18A1201, Description: PFC CS-3 537 18A1201

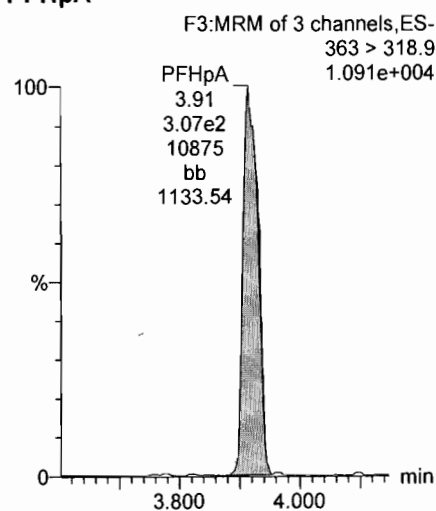
PFBS



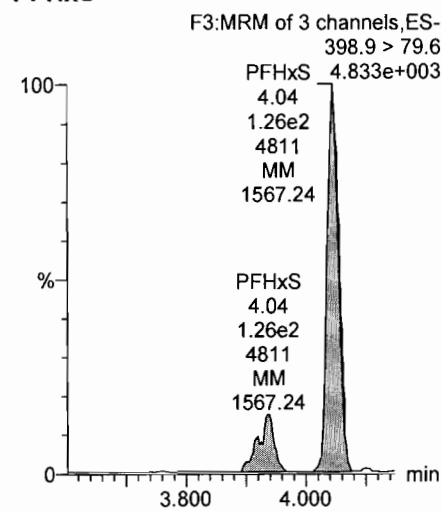
PFHxA



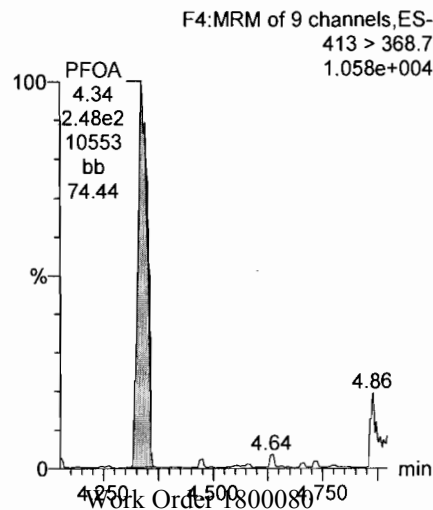
PFHpA



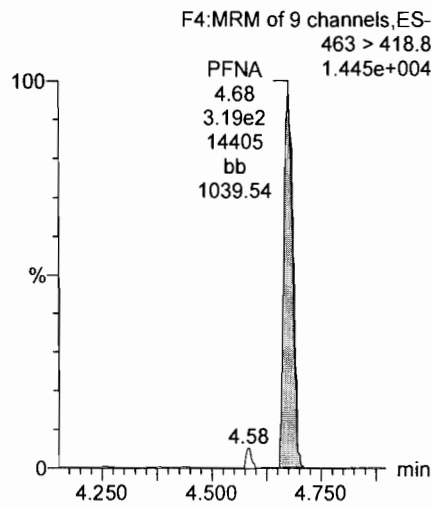
PFHxS



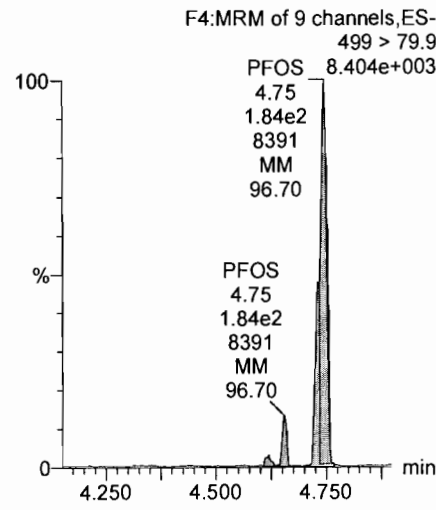
PFOA



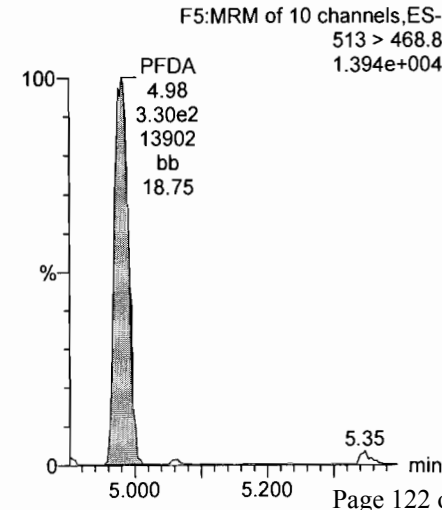
PFNA



PFOS



PFDA



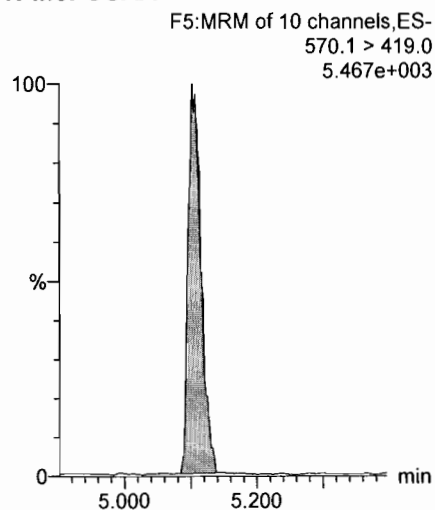
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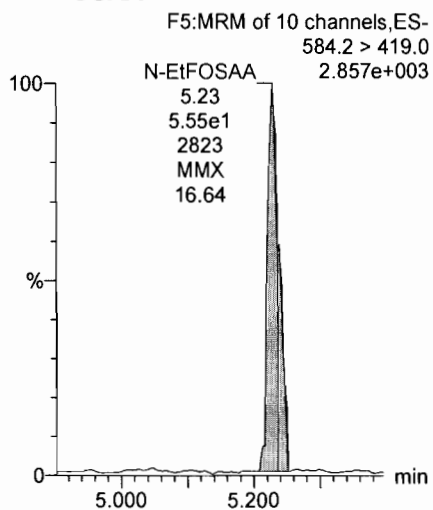
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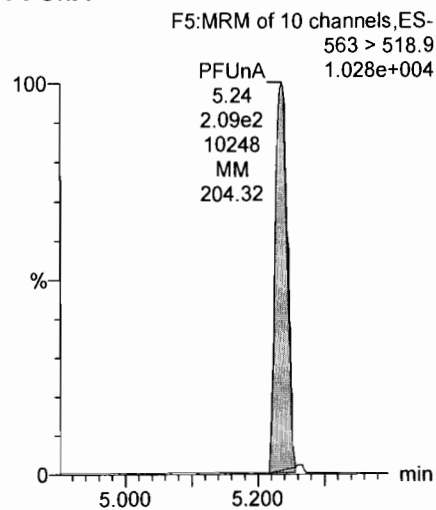
N-MeFOSAA



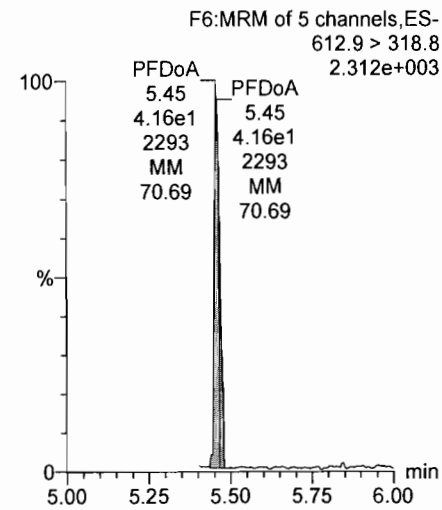
N-EtFOSAA



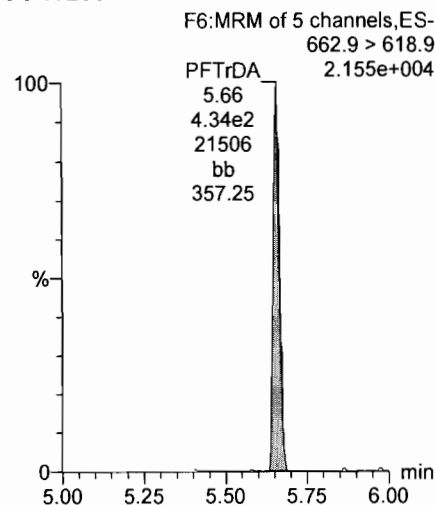
PFUnA



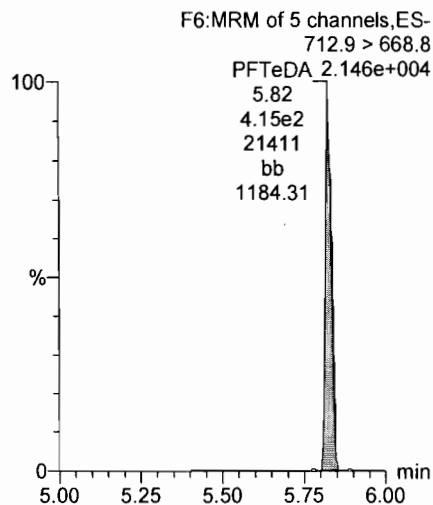
PFDaA



PFTTrDA



PFTeDA



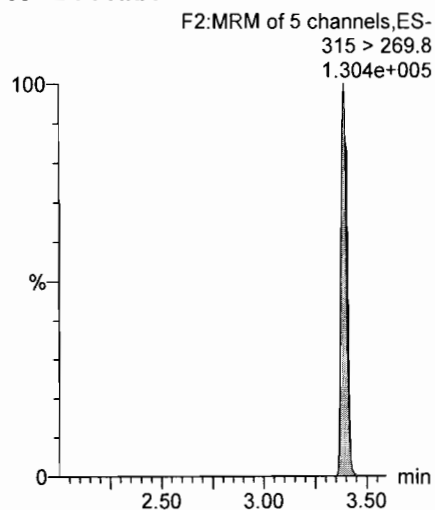
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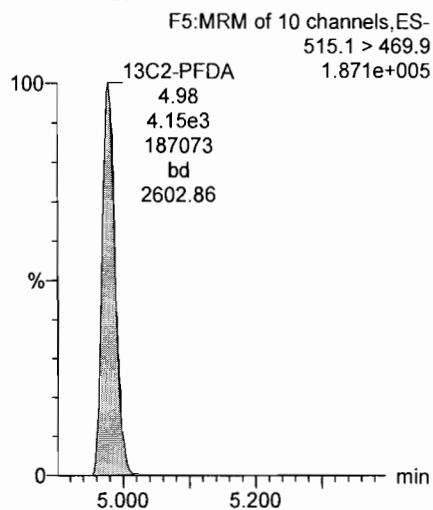
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Name: 180114G2_2, Date: 14-Jan-2018, Time: 17:15:00, ID: ST180114G2-1 PFC CS-3 537 18A1201, Description: PFC CS-3 537 18A1201

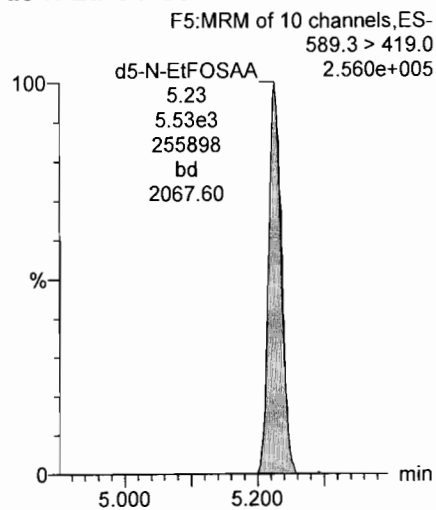
13C2-PFHxA



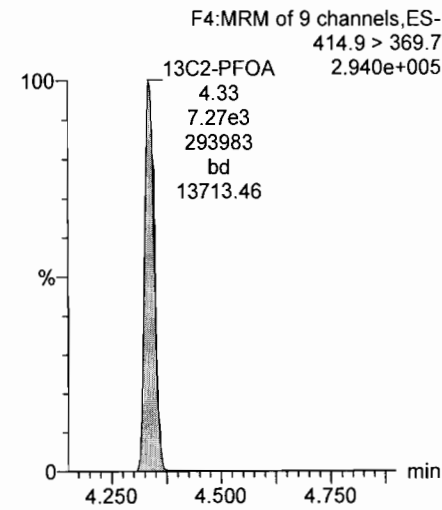
13C2-PFDA



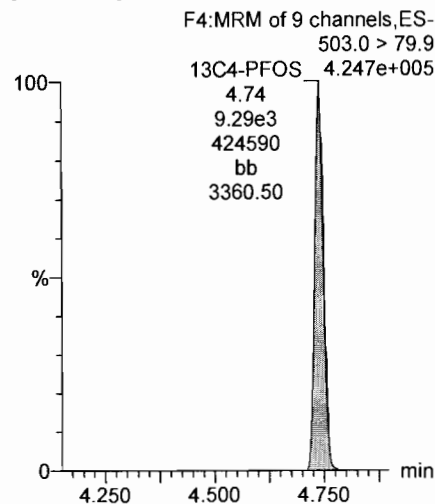
d5-N-EtFOSAA



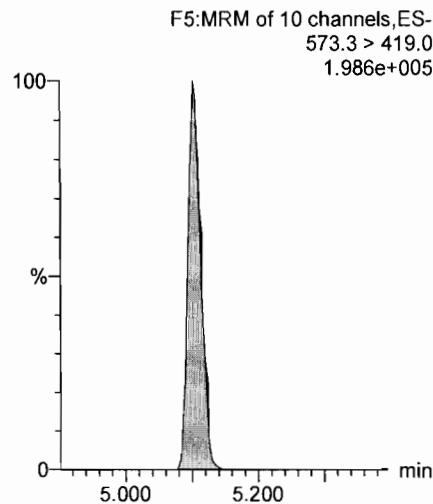
13C2-PFOA



13C4-PFOS



d3-N-MeFOSAA



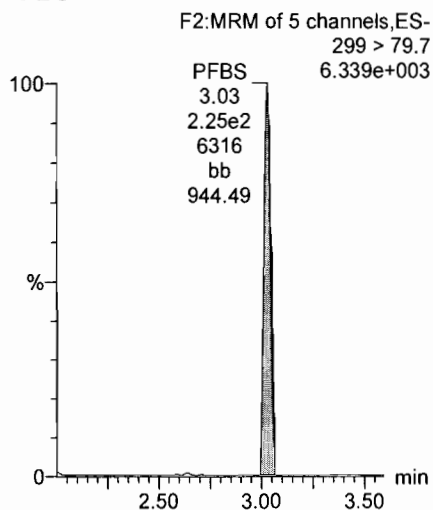
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Last Altered: Monday, January 15, 2018 10:11:44 Pacific Standard Time

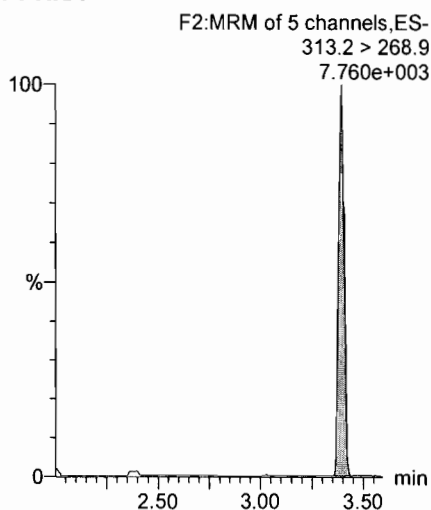
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Name: 180114G2_3, Date: 14-Jan-2018, Time: 17:27:26, ID: ST180114G2-2 PFC CS-2 537 18A1202, Description: PFC CS-2 537 18A1202

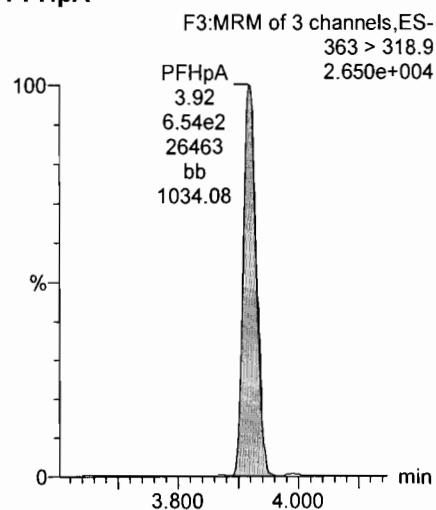
PFBS



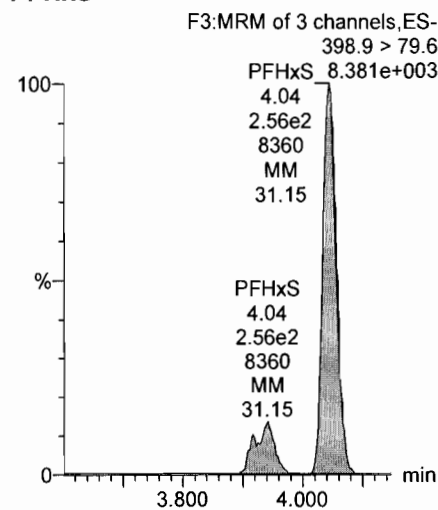
PFHxA



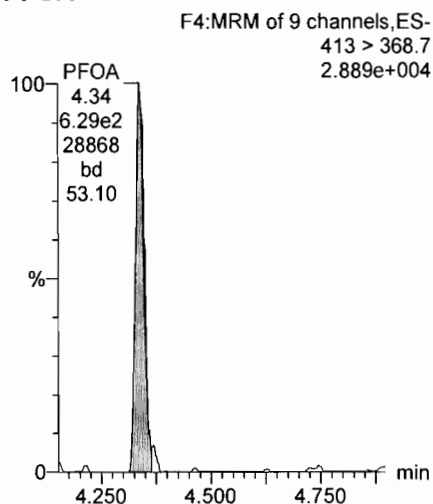
PFHpA



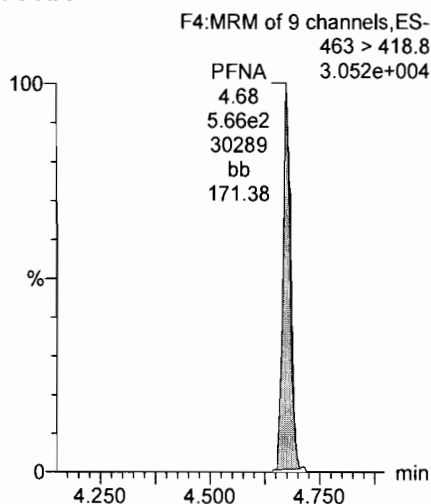
PFHxS



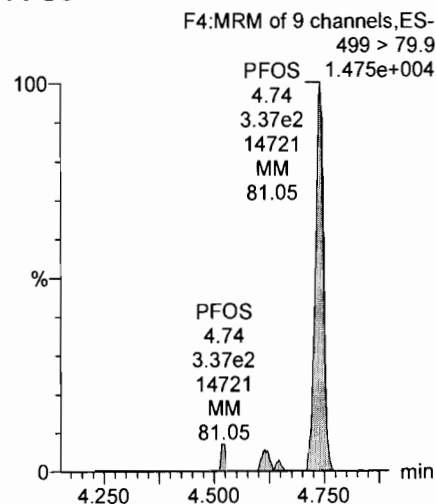
PFOA



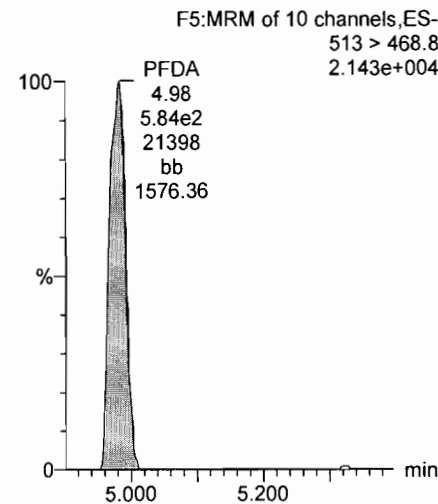
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PFOS



PFDA



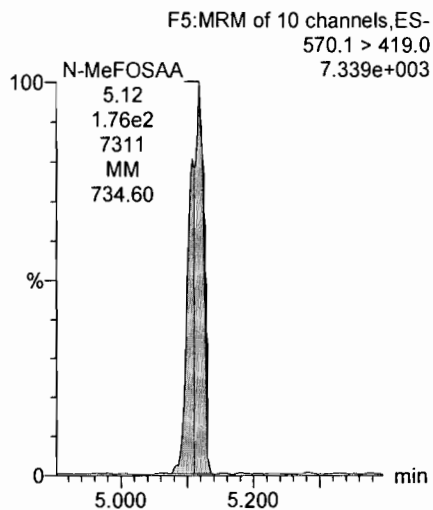
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Last Altered: Monday, January 15, 2018 10:11:44 Pacific Standard Time

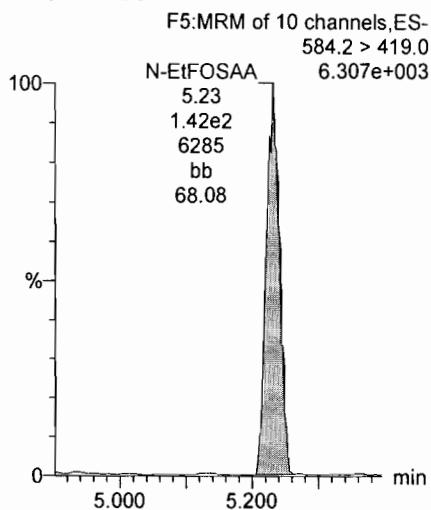
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Name: 180114G2_3, Date: 14-Jan-2018, Time: 17:27:26, ID: ST180114G2-2 PFC CS-2 537 18A1202, Description: PFC CS-2 537 18A1202

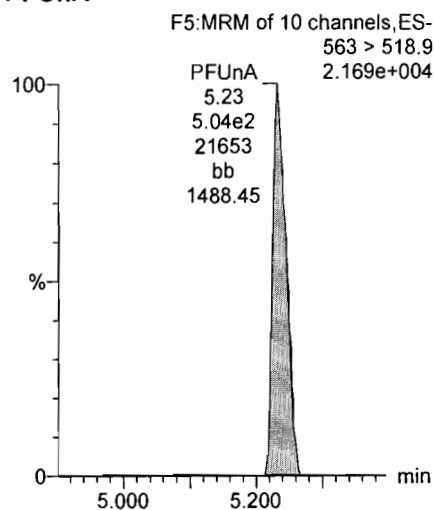
N-MeFOSAA



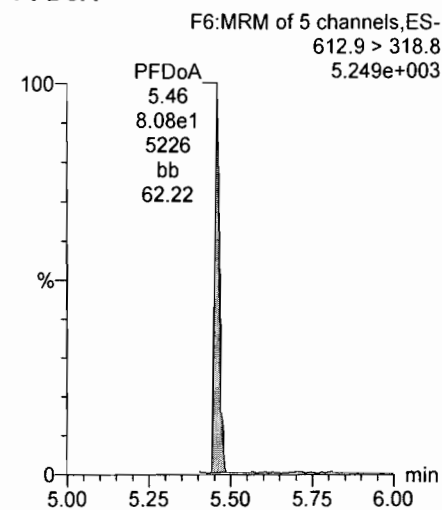
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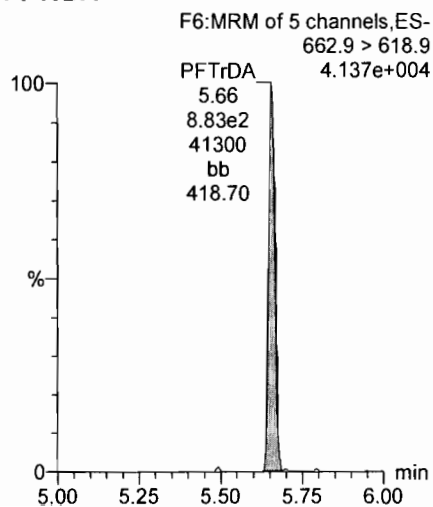
PFUnA



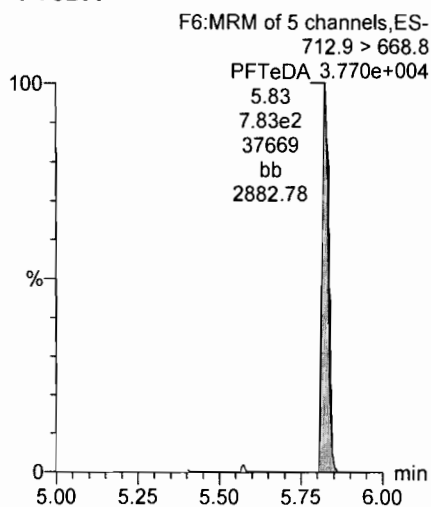
PFDaA



PFTrDA



PFTeDA



Dataset: U:\G1.PRO\Results\2018\180114G2\180114G2-CRV.qld

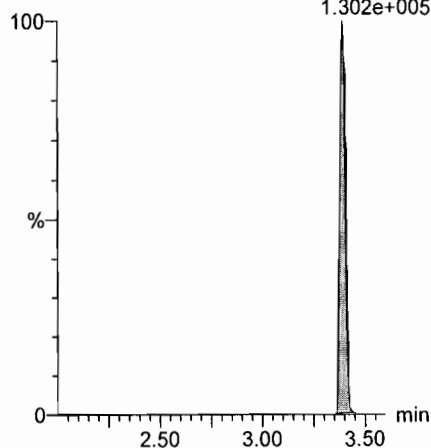
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Name: 180114G2_3, Date: 14-Jan-2018, Time: 17:27:26, ID: ST180114G2-2 PFC CS-2 537 18A1202, Description: PFC CS-2 537 18A1202

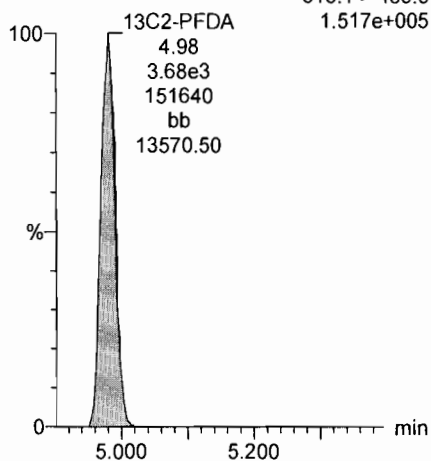
13C2-PFHxA

F2:MRM of 5 channels,ES-
315 > 269.8
1.302e+005



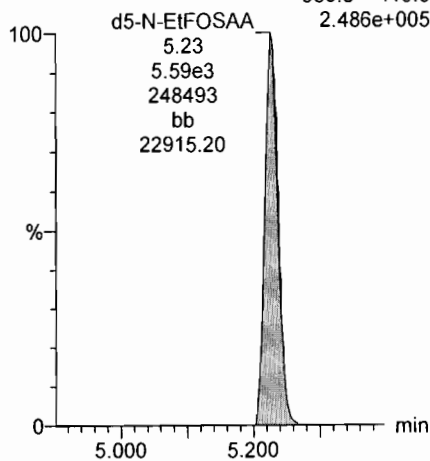
13C2-PFDA

F5:MRM of 10 channels,ES-
515.1 > 469.9
1.517e+005



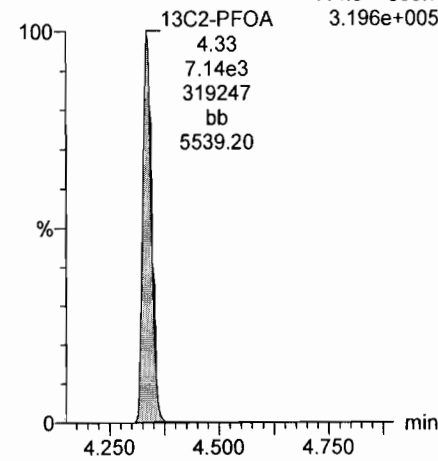
d5-N-EtFOSAA

F5:MRM of 10 channels,ES-
589.3 > 419.0
2.486e+005



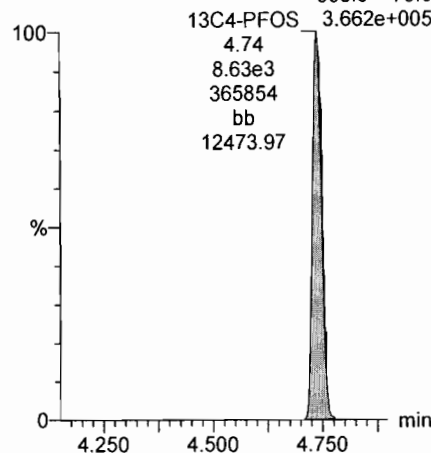
13C2-PFOA

F4:MRM of 9 channels,ES-
414.9 > 369.7
3.196e+005



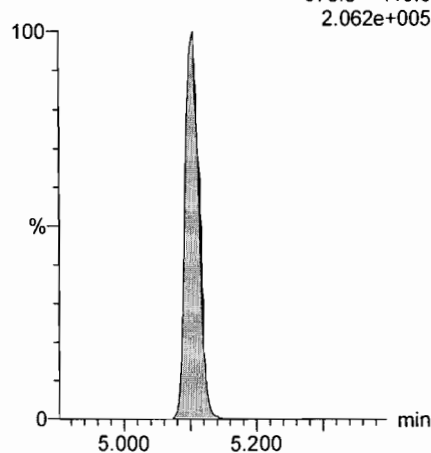
13C4-PFOS

F4:MRM of 9 channels,ES-
503.0 > 79.9
3.662e+005



d3-N-MeFOSAA

F5:MRM of 10 channels,ES-
573.3 > 419.0
2.062e+005



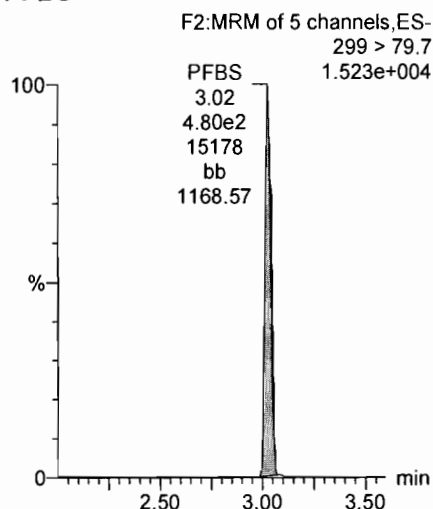
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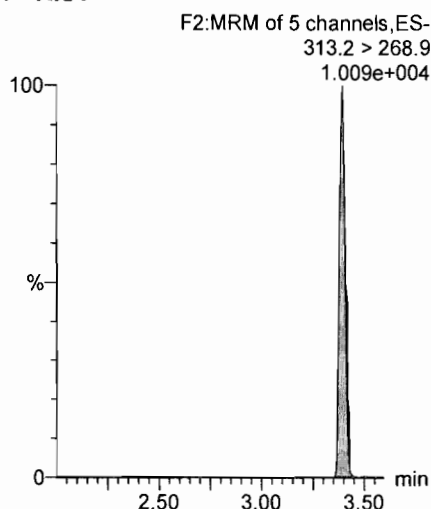
Printed: Monday, January 15, 2018 10:12:39 Pacific Standard Time

Name: 180114G2_4, Date: 14-Jan-2018, Time: 17:39:52, ID: ST180114G2-3 PFC CS-1 537 18A1203, Description: PFC CS-1 537 18A1203

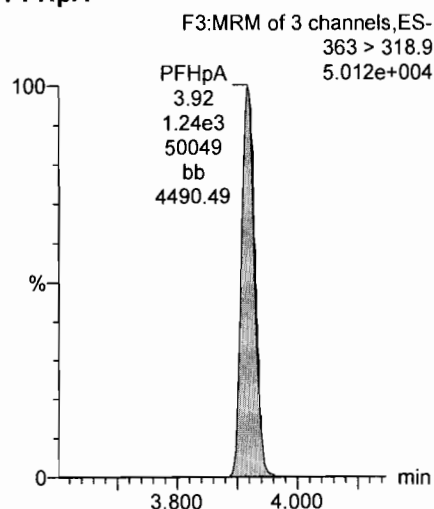
PFBS



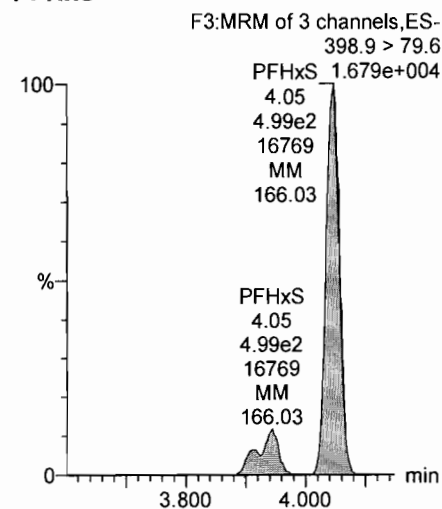
PFHxA



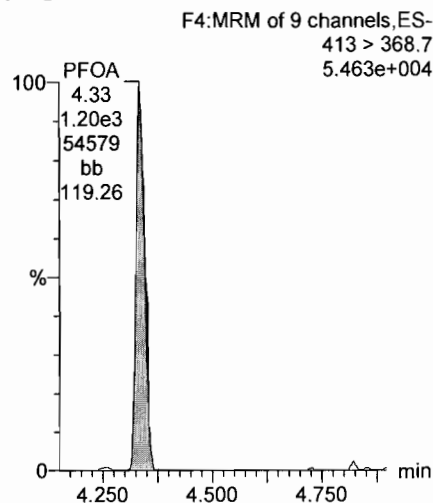
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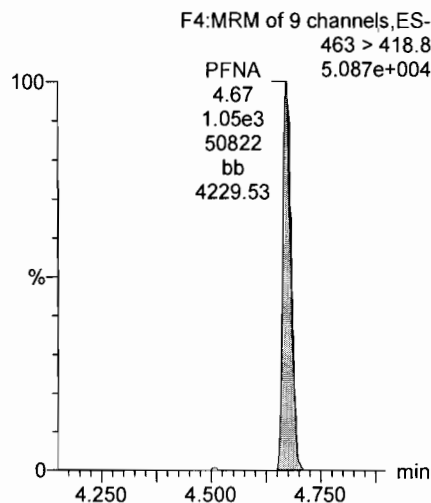
PFHxS



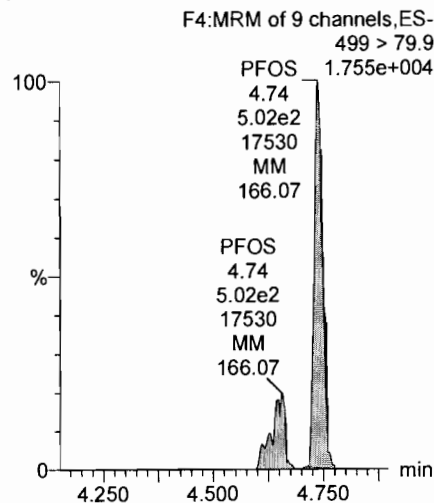
PFOA



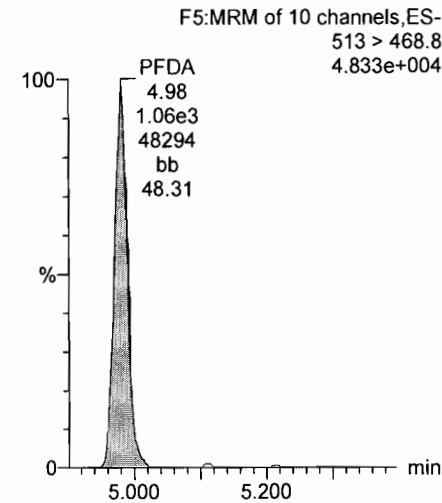
PFNA



PFOS



PFDA



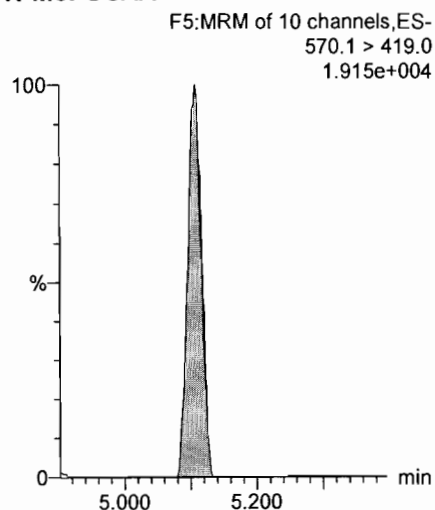
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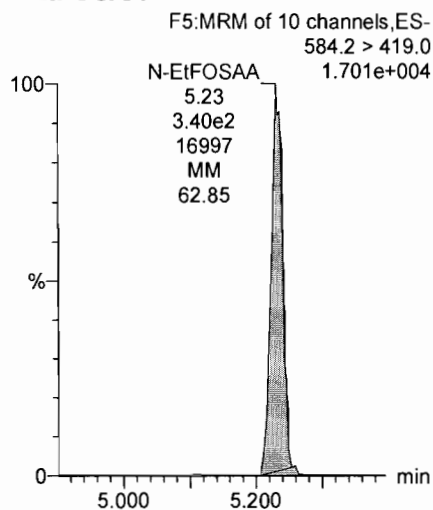
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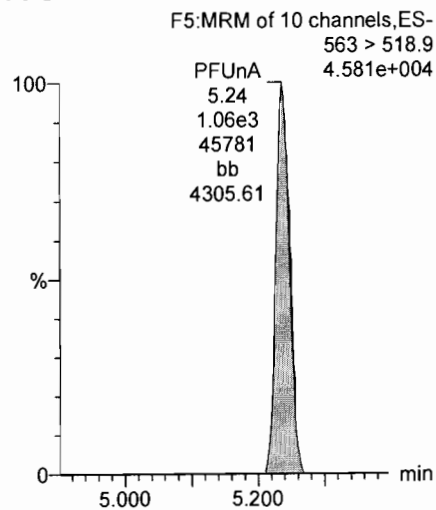
N-MeFOSAA



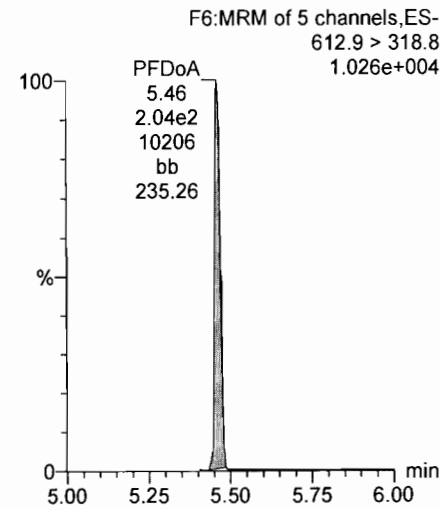
N-EtFOSAA



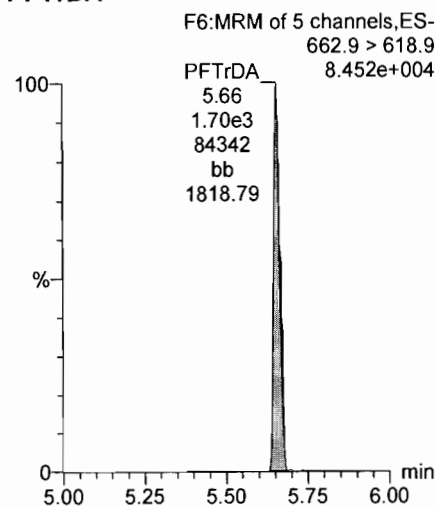
PFUnA



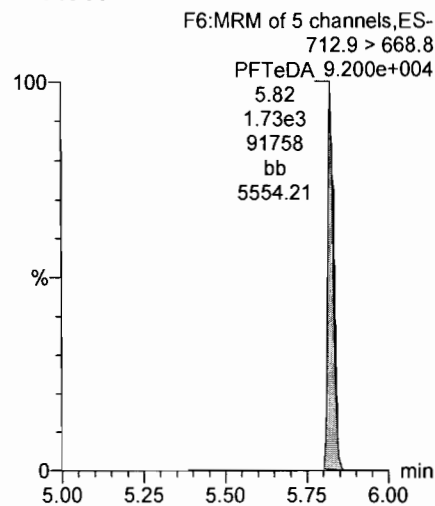
PFDaA



PFTeDA



PFTeDA



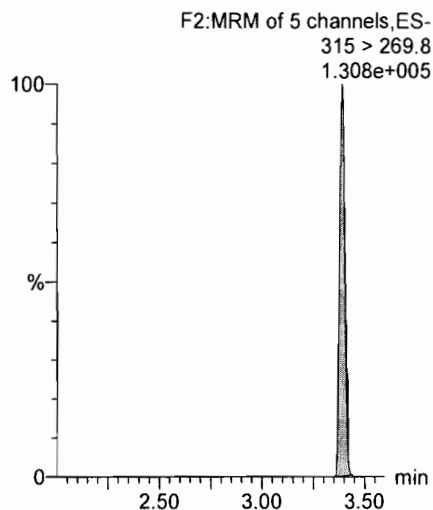
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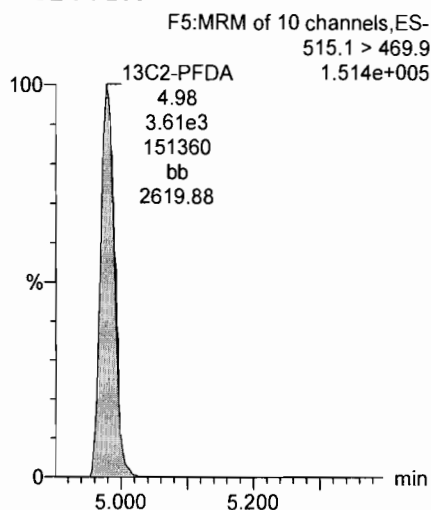
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Name: 180114G2_4, Date: 14-Jan-2018, Time: 17:39:52, ID: ST180114G2-3 PFC CS-1 537 18A1203, Description: PFC CS-1 537 18A1203

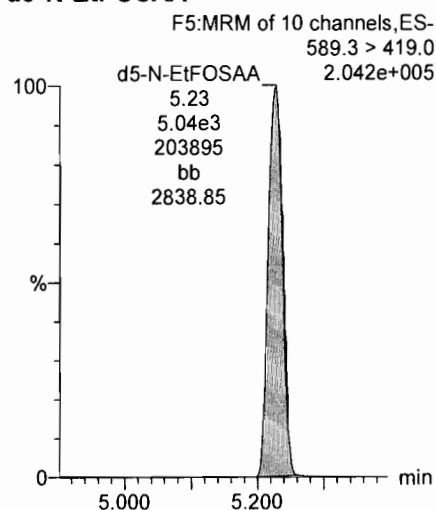
13C2-PFHxA



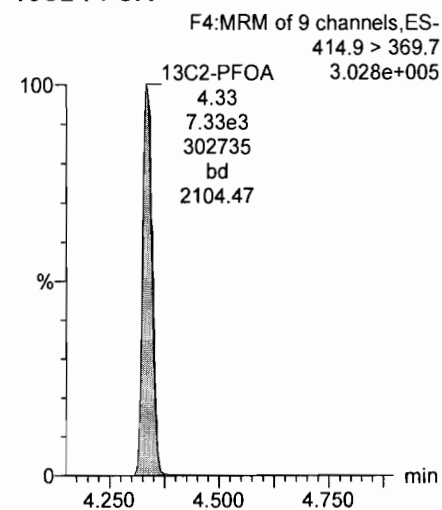
13C2-PFDA



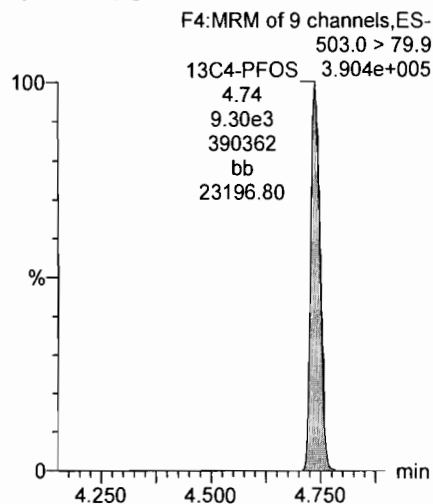
d5-N-EtFOSAA



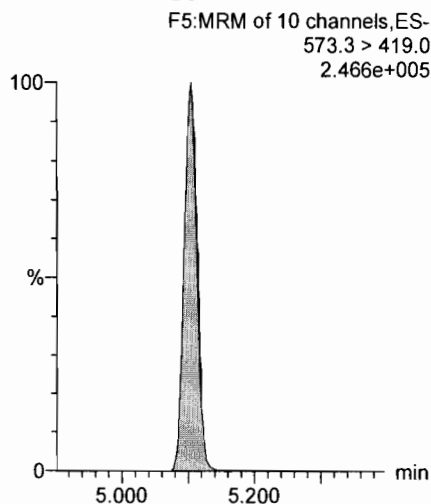
13C2-PFOA



13C4-PFOS



d3-N-MeFOSAA



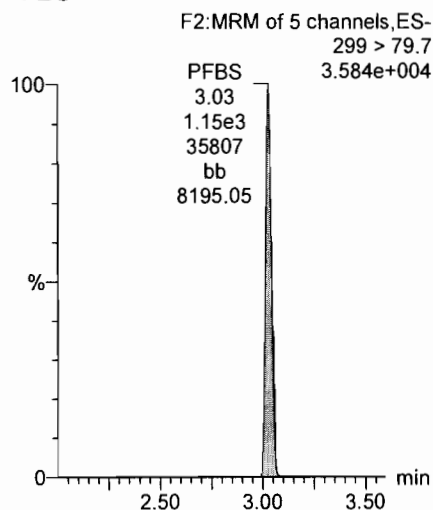
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Last Altered: Monday, January 15, 2018 10:11:44 Pacific Standard Time

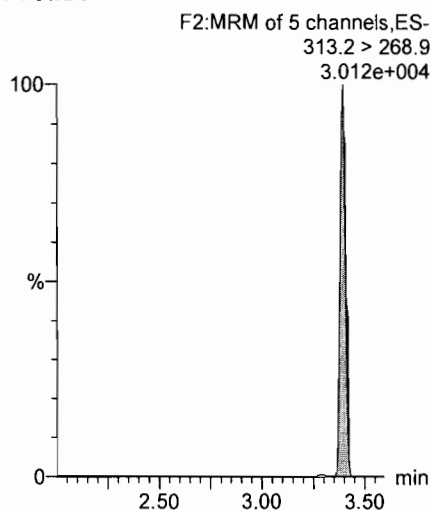
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Name: 180114G2_5, Date: 14-Jan-2018, Time: 17:52:19, ID: ST180114G2-4 PFC CS0 537 18A1204, Description: PFC CS0 537 18A1204

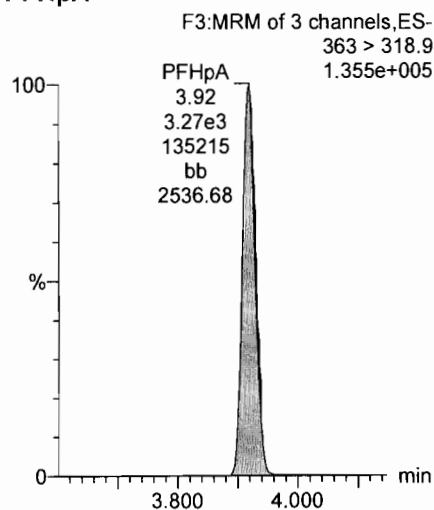
PFBS



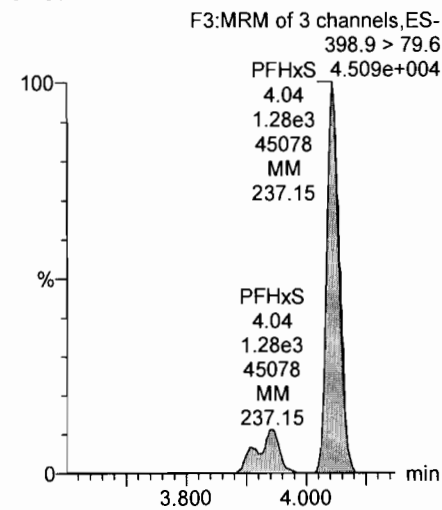
PFHxA



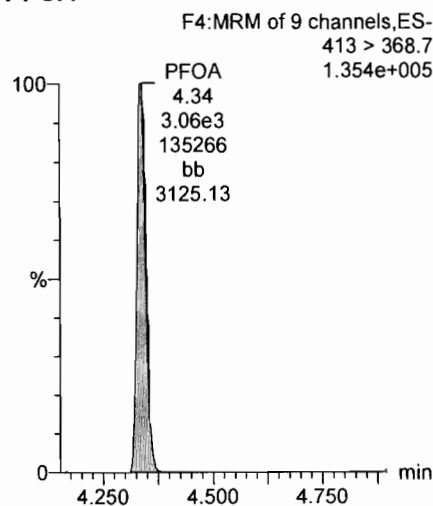
PFHpA



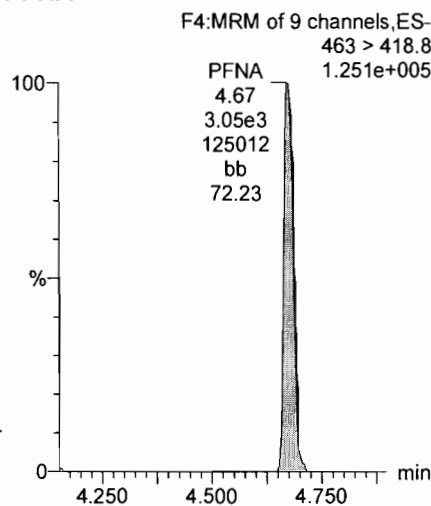
PFHxS



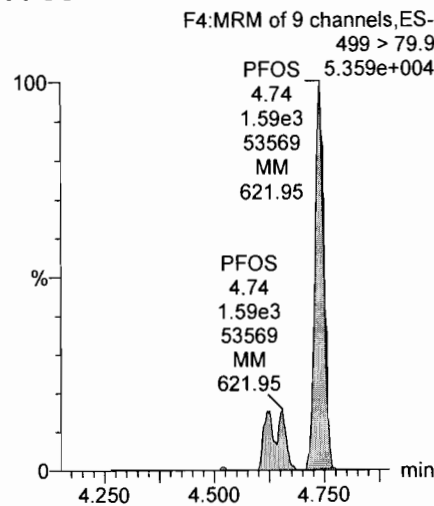
PFOA



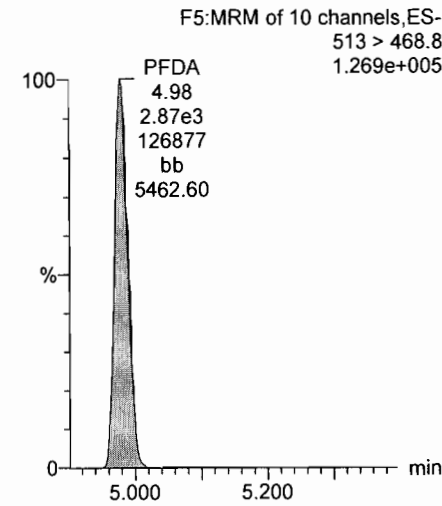
PFNA



PFOS



PFDA



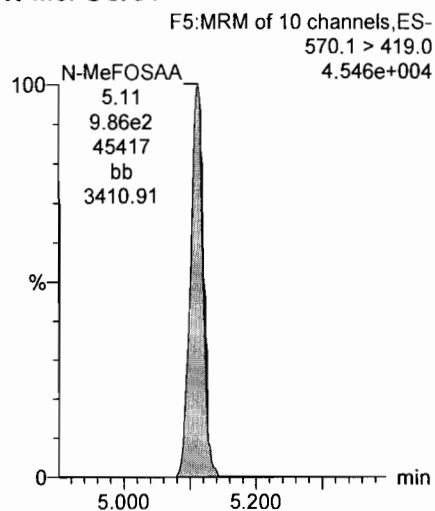
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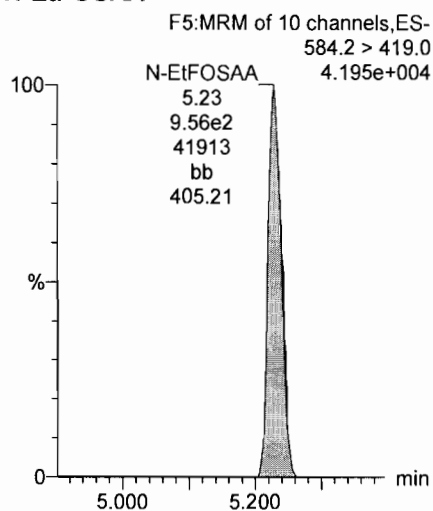
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Name: 180114G2_5, Date: 14-Jan-2018, Time: 17:52:19, ID: ST180114G2-4 PFC CS0 537 18A1204, Description: PFC CS0 537 18A1204

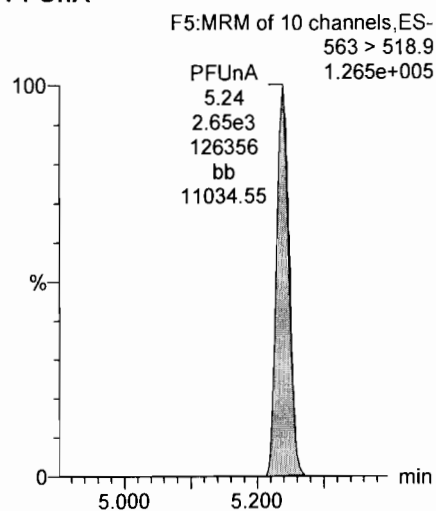
N-MeFOSAA



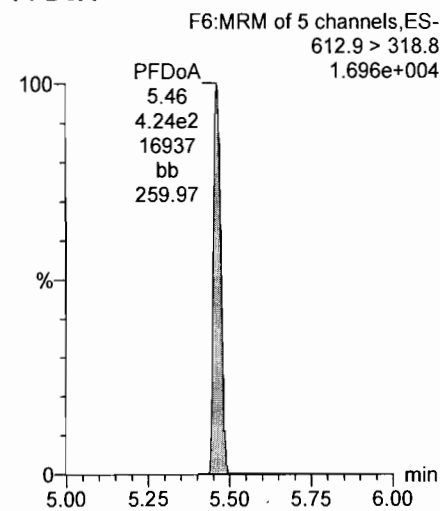
N-EtFOSAA



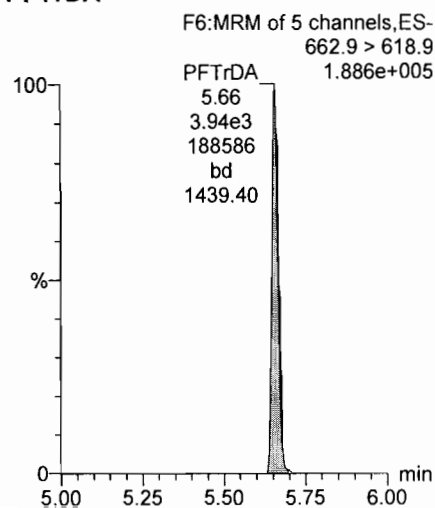
PFUnA



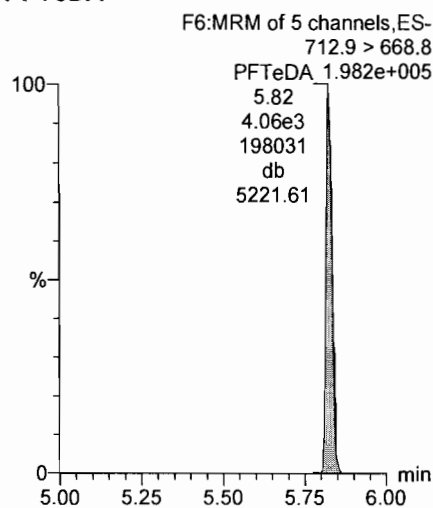
PFDaA



PFTTrDA



PFTeDA



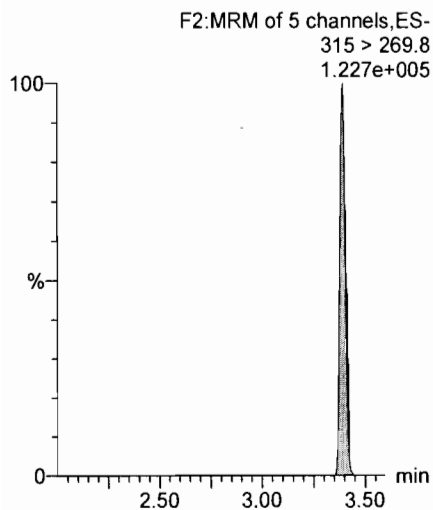
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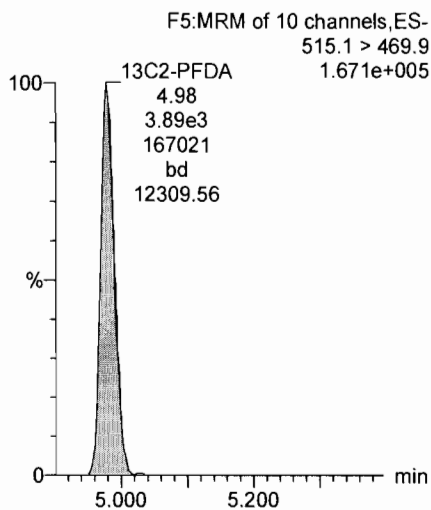
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Name: 180114G2_5, Date: 14-Jan-2018, Time: 17:52:19, ID: ST180114G2-4 PFC CS0 537 18A1204, Description: PFC CS0 537 18A1204

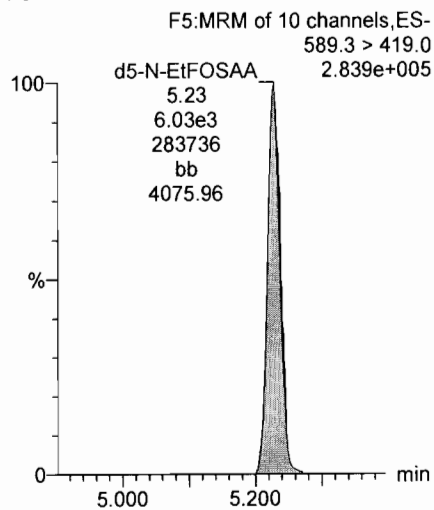
13C2-PFHxA



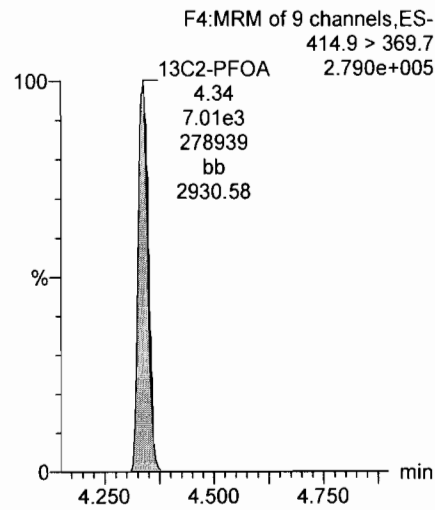
13C2-PFDA



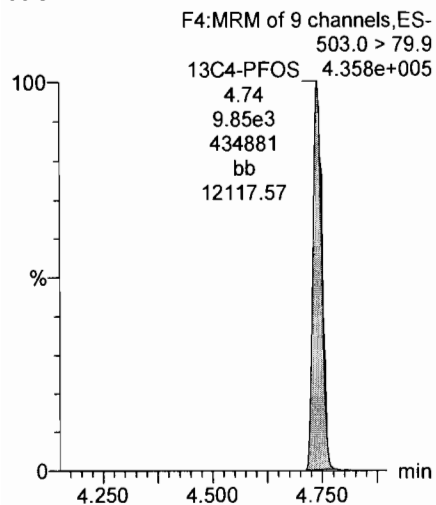
d5-N-EtFOSAA



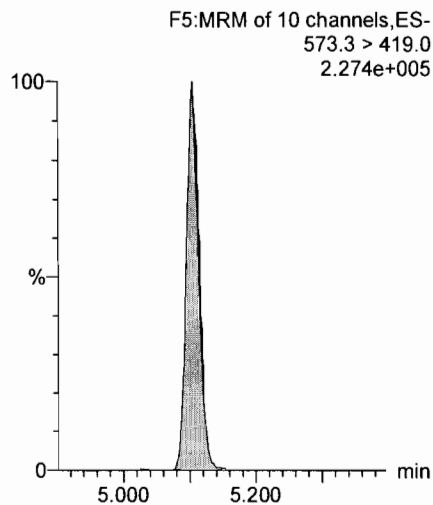
13C2-PFOA



13C4-PFOS



d3-N-MeFOSAA



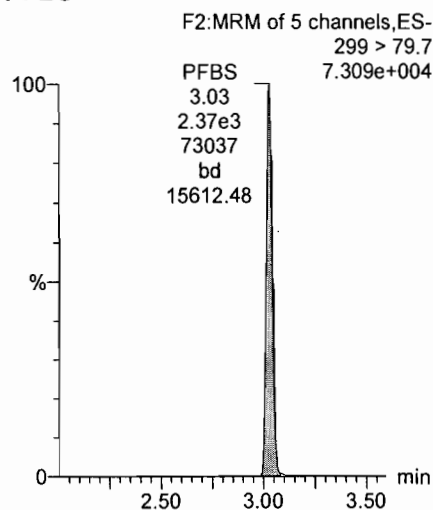
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Last Altered: Monday, January 15, 2018 10:11:44 Pacific Standard Time

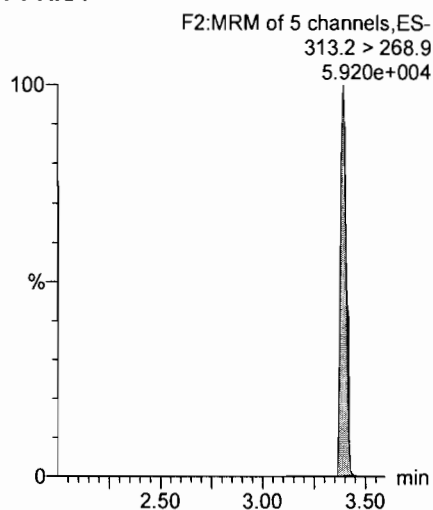
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Name: 180114G2_6, Date: 14-Jan-2018, Time: 18:04:46, ID: ST180114G2-5 PFC CS1 537 18A1205, Description: PFC CS1 537 18A1205

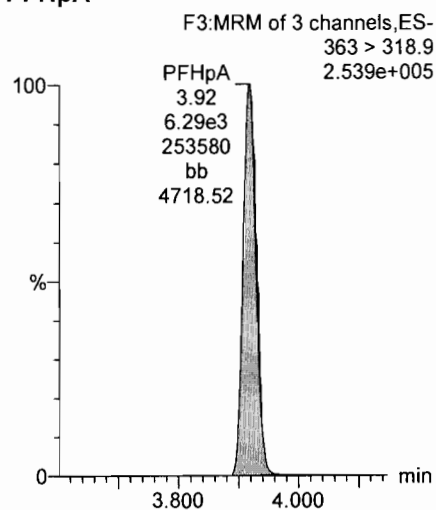
PFBS



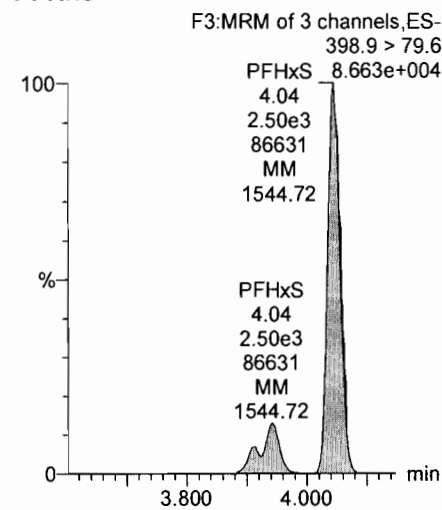
PFHxA



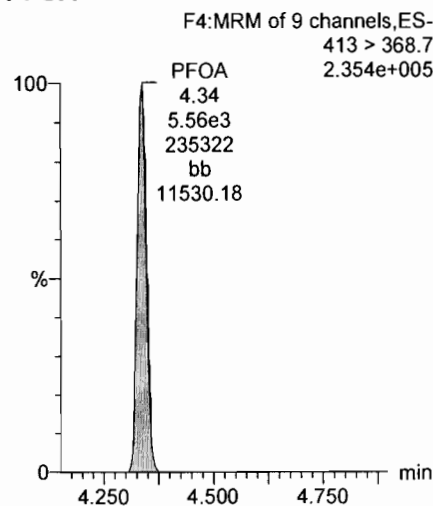
PFHpA



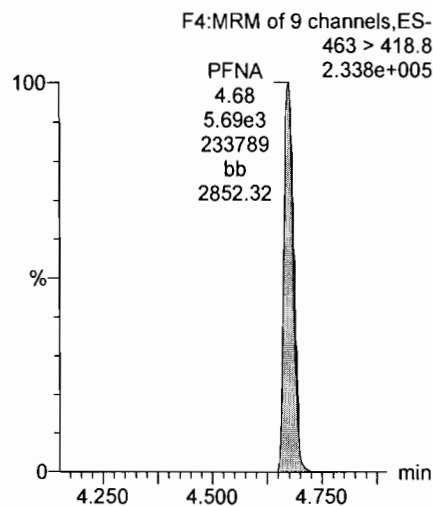
PFHxS



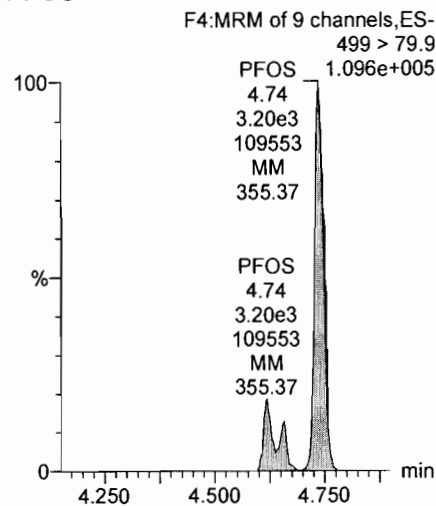
PFOA



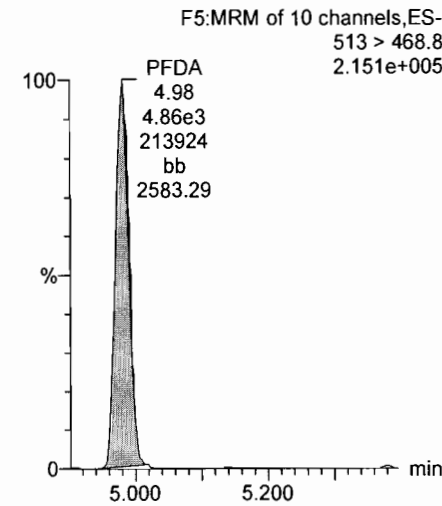
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PFOS



PFDA



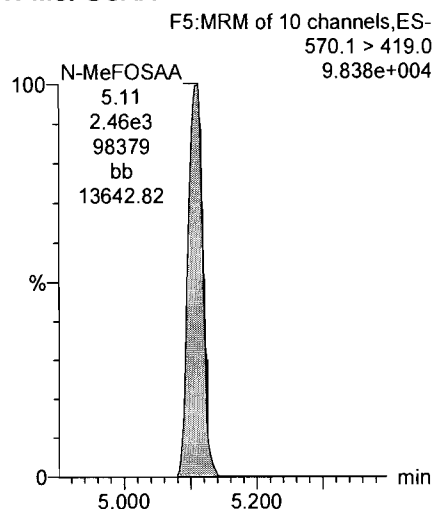
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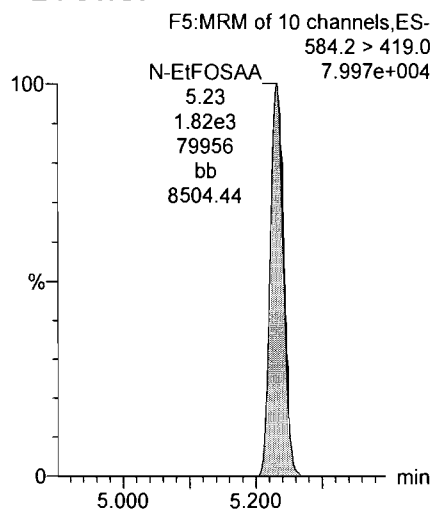
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Name: 180114G2_6, Date: 14-Jan-2018, Time: 18:04:46, ID: ST180114G2-5 PFC CS1 537 18A1205, Description: PFC CS1 537 18A1205

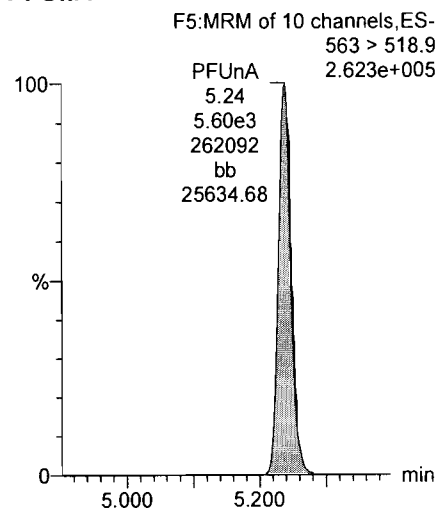
N-MeFOSAA



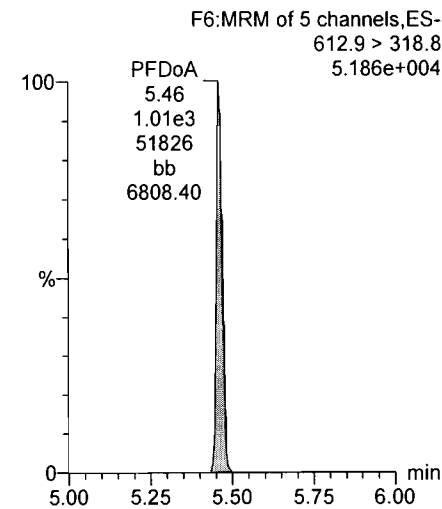
N-EtFOSAA



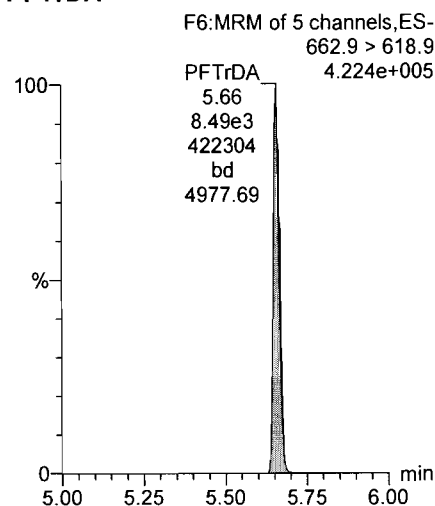
PFUnA



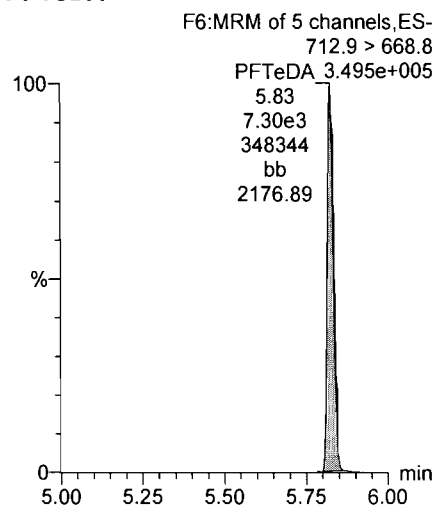
PFDaA



PFTTrDA



PFTeDA



Dataset: U:\G1.PRO\Results\2018\180114G2\180114G2-CRV.qld

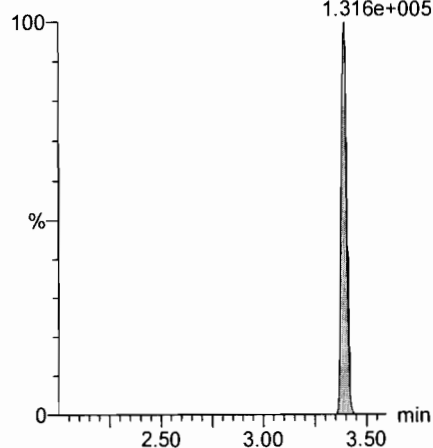
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Printed: Monday, January 15, 2018 10:12:39 Pacific Standard Time

Name: 180114G2_6, Date: 14-Jan-2018, Time: 18:04:46, ID: ST180114G2-5 PFC CS1 537 18A1205, Description: PFC CS1 537 18A1205

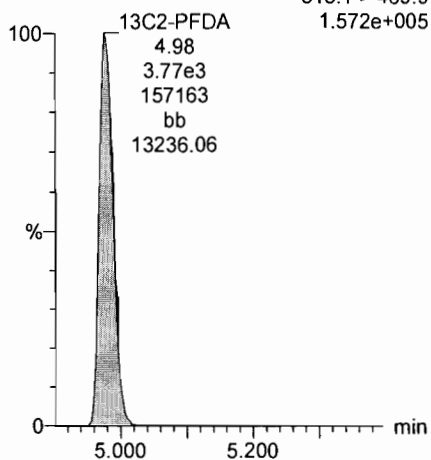
13C2-PFHxA

F2:MRM of 5 channels,ES-
315 > 269.8
1.316e+005



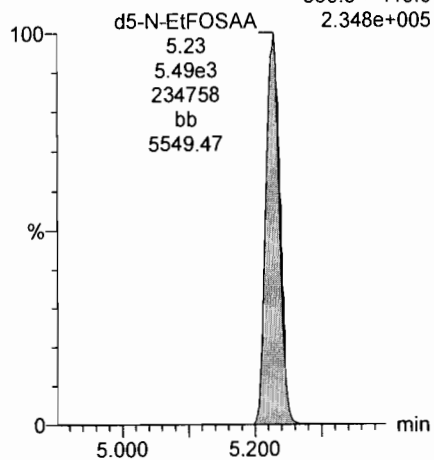
13C2-PFDA

F5:MRM of 10 channels,ES-
515.1 > 469.9
1.572e+005



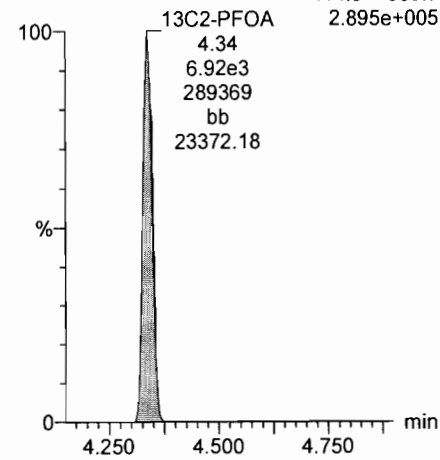
d5-N-EtFOSAA

F5:MRM of 10 channels,ES-
589.3 > 419.0
2.348e+005



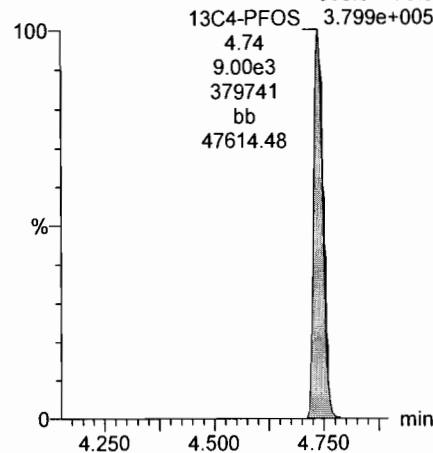
13C2-PFOA

F4:MRM of 9 channels,ES-
414.9 > 369.7
2.895e+005



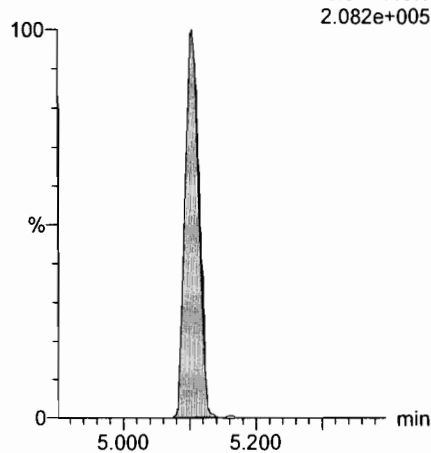
13C4-PFOS

F4:MRM of 9 channels,ES-
503.0 > 79.9
3.799e+005



d3-N-MeFOSAA

F5:MRM of 10 channels,ES-
573.3 > 419.0
2.082e+005

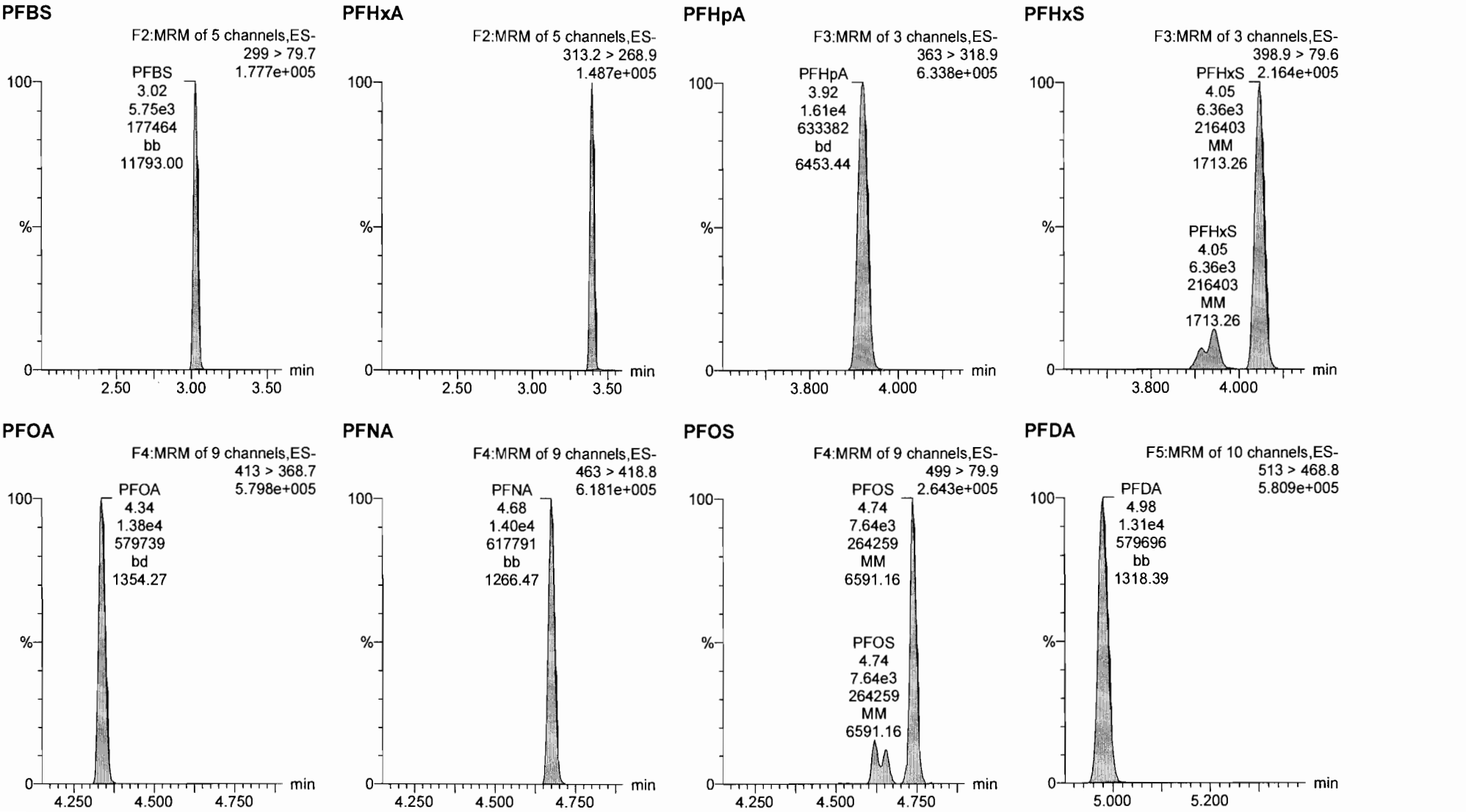


Dataset: U:\G1.PRO\Results\2018\180114G2\180114G2-CRV.qld

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Printed: Monday, January 15, 2018 10:12:39 Pacific Standard Time

Name: 180114G2_7, Date: 14-Jan-2018, Time: 18:17:14, ID: ST180114G2-6 PFC CS2 537 18A1206, Description: PFC CS2 537 18A1206

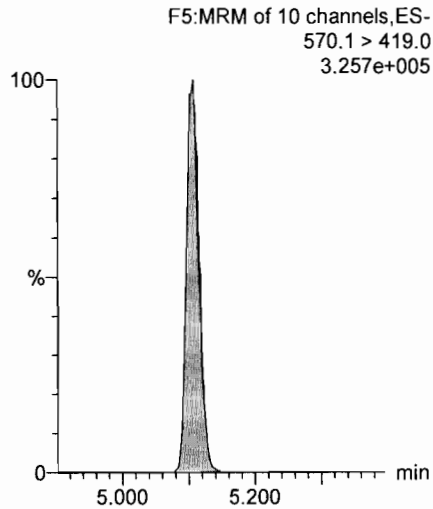


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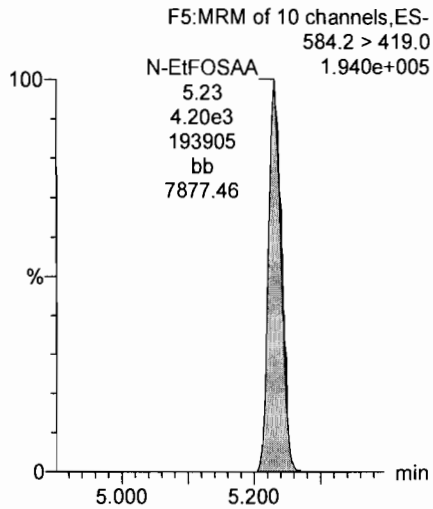
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Printed: Monday, January 15, 2018 10:12:39 Pacific Standard Time

Name: 180114G2_7, Date: 14-Jan-2018, Time: 18:17:14, ID: ST180114G2-6 PFC CS2 537 18A1206, Description: PFC CS2 537 18A1206

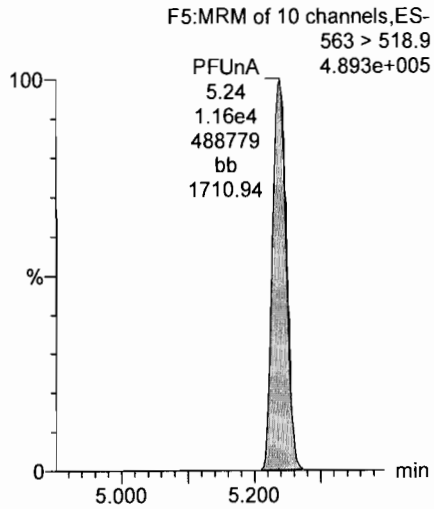
N-MeFOSAA



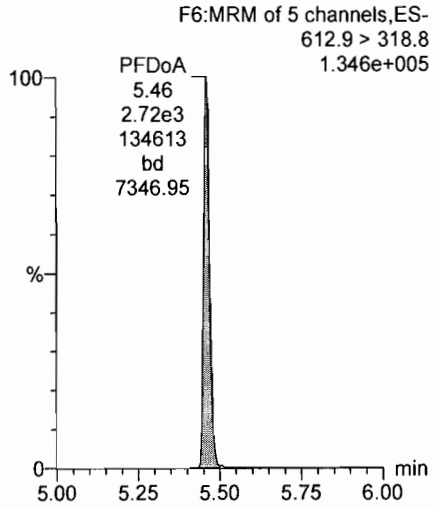
N-EtFOSAA



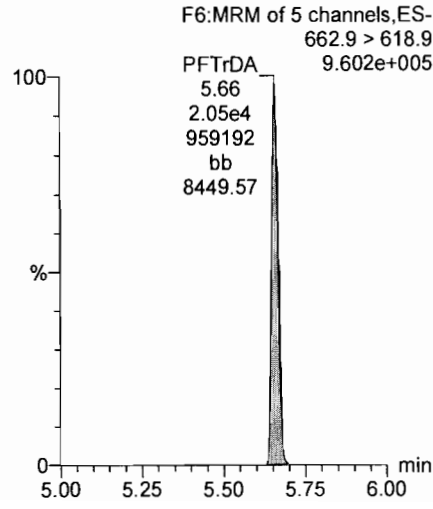
PFUnA



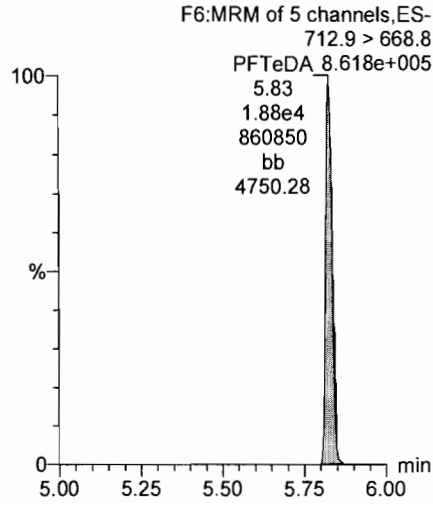
PFDaA



PFTTrDA



PFTeDA



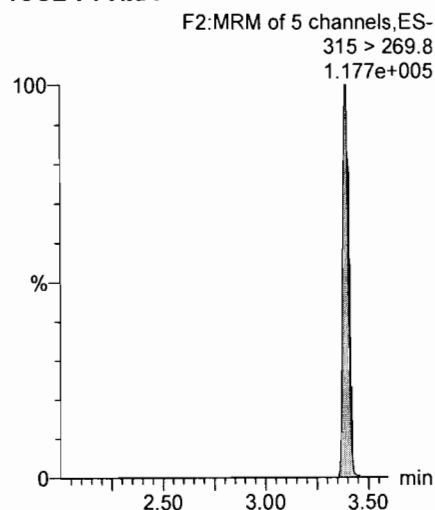
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Last Altered: Monday, January 15, 2018 10:11:44 Pacific Standard Time

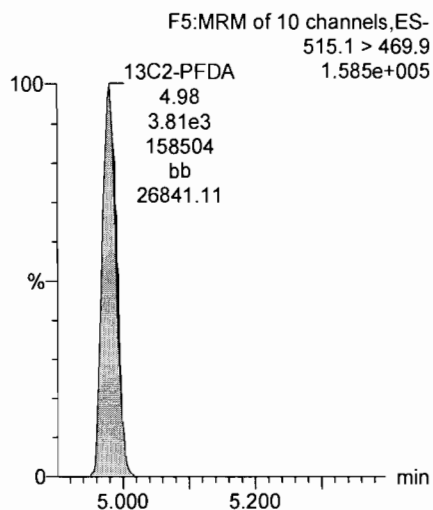
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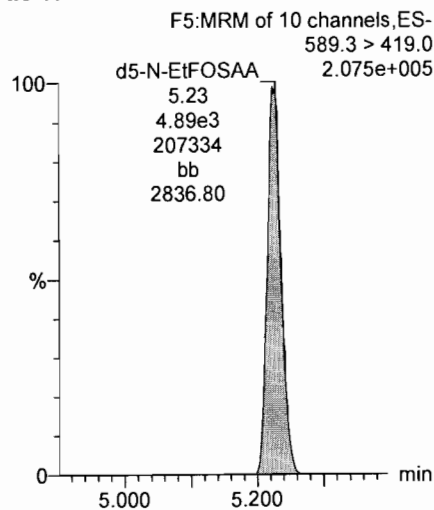
13C2-PFHxA



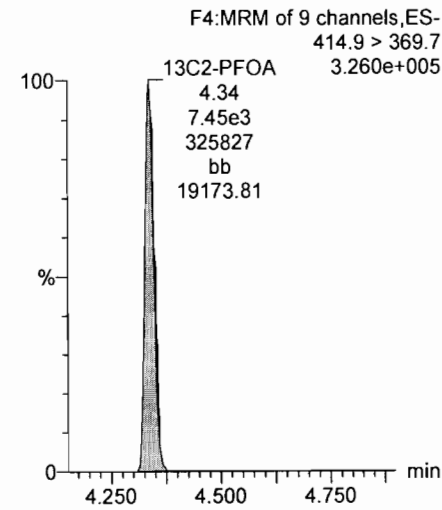
13C2-PFDA



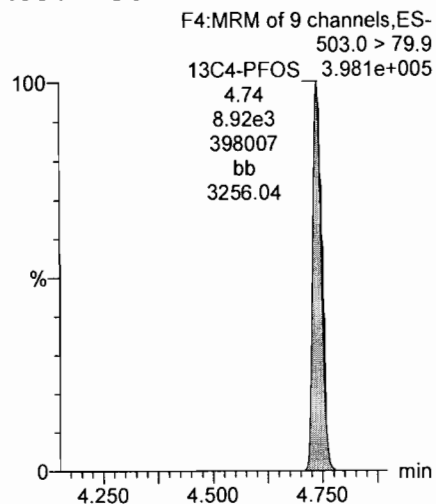
d5-N-EtFOSAA



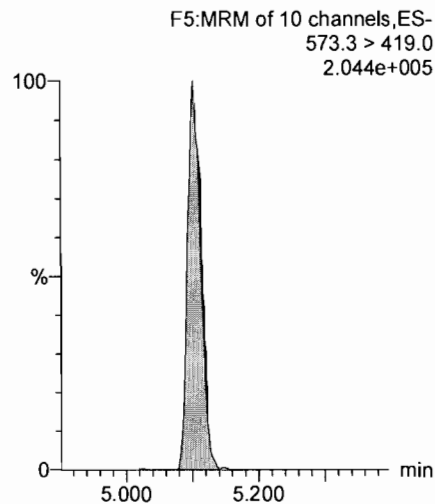
13C2-PFOA



13C4-PFOS



d3-N-MeFOSAA



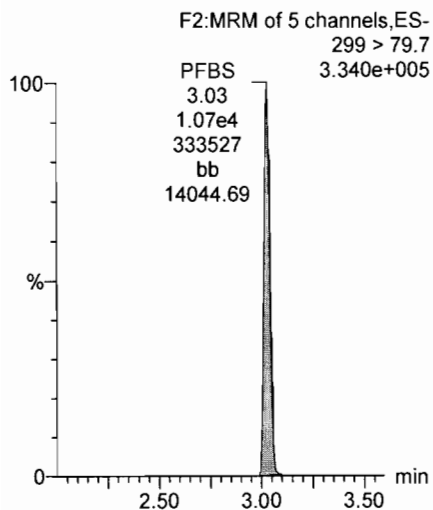
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Last Altered: Monday, January 15, 2018 10:11:44 Pacific Standard Time

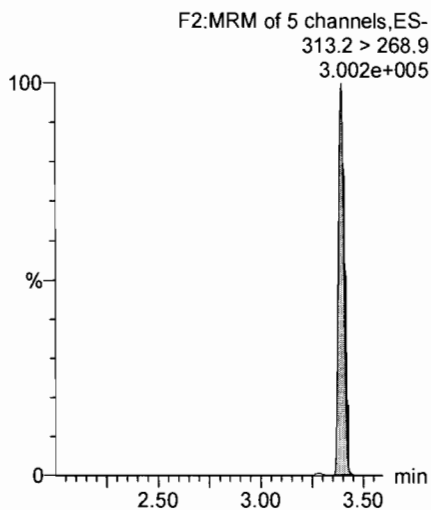
Printed: Monday, January 15, 2018 10:12:39 Pacific Standard Time

Name: 180114G2_8, Date: 14-Jan-2018, Time: 18:29:38, ID: ST180114G2-7 PFC CS3 537 18A1207, Description: PFC CS3 537 18A1207

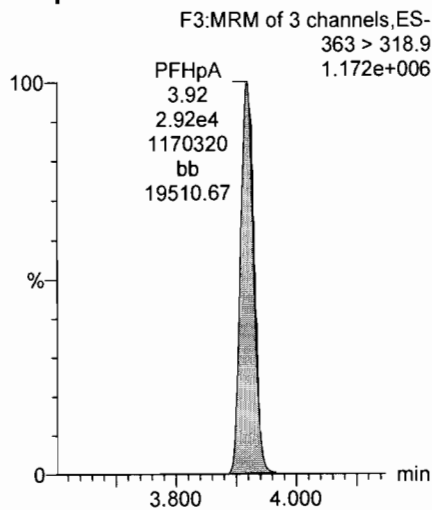
PFBS



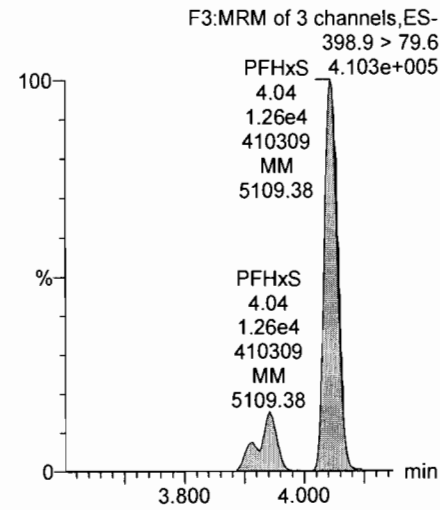
PFHxA



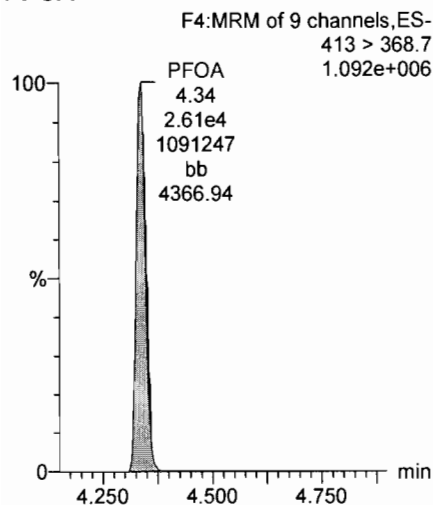
PFHpA



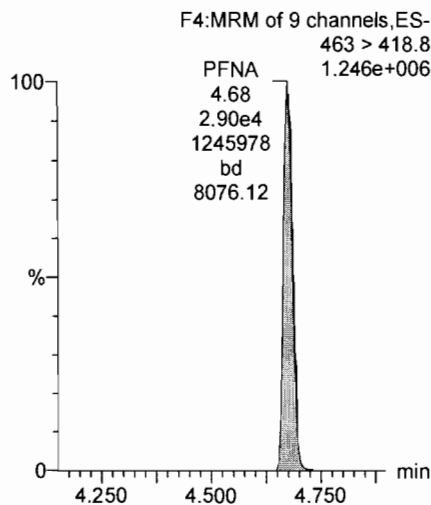
PFHxS



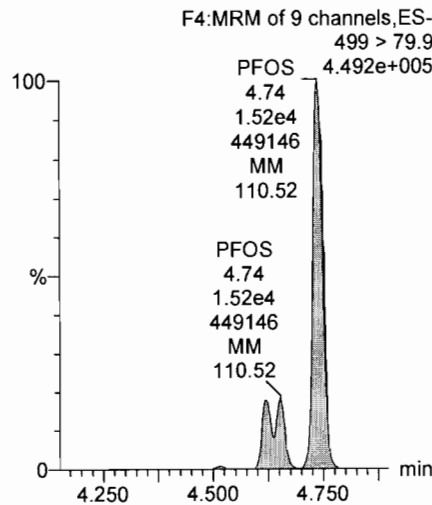
PFOA



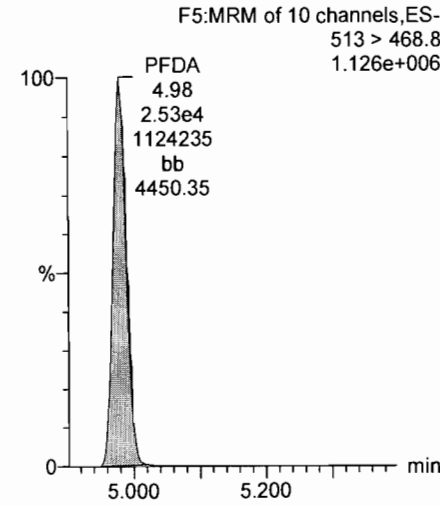
PFNA



PFOS



PFDA

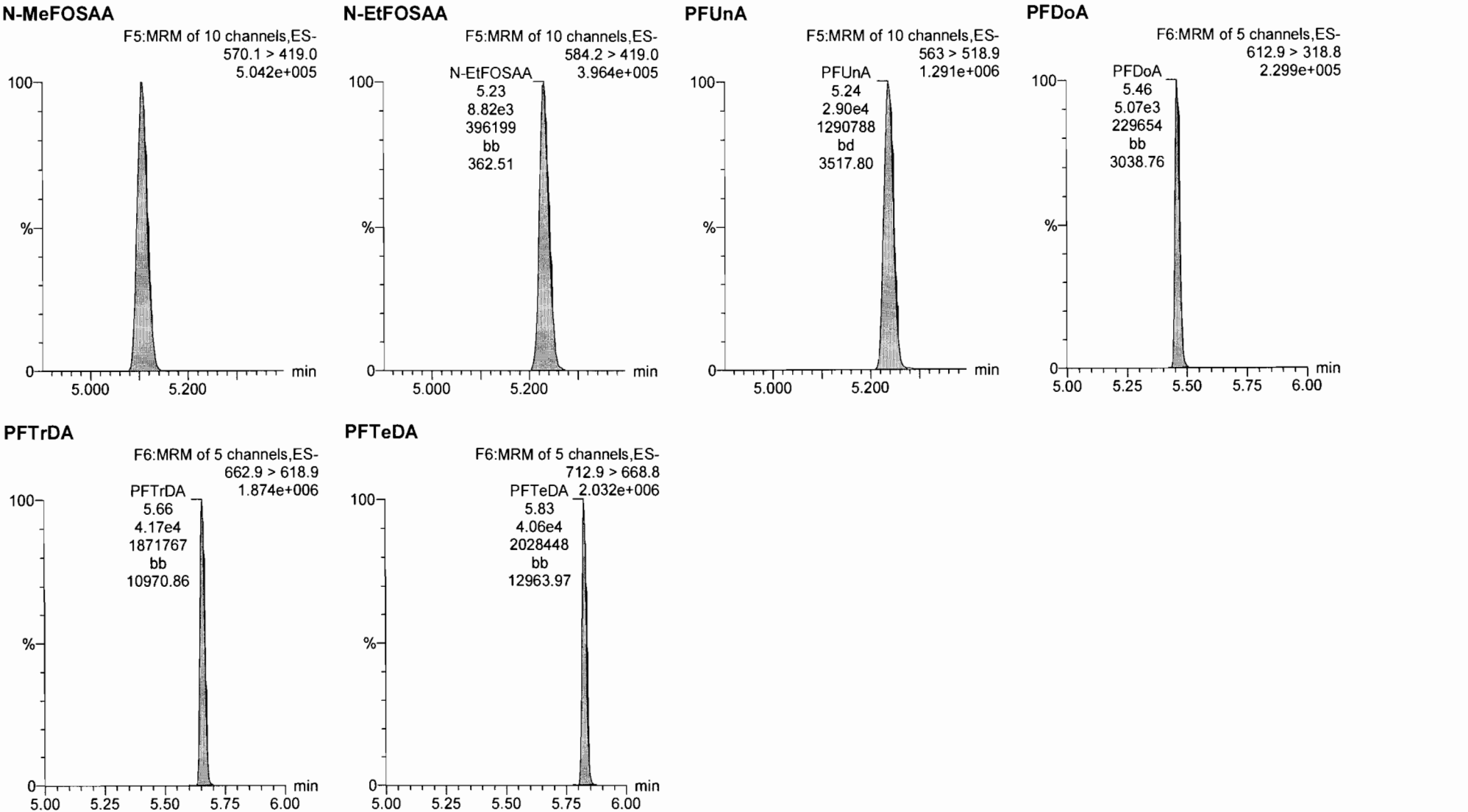


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Name: 180114G2_8, Date: 14-Jan-2018, Time: 18:29:38, ID: ST180114G2-7 PFC CS3 537 18A1207, Description: PFC CS3 537 18A1207



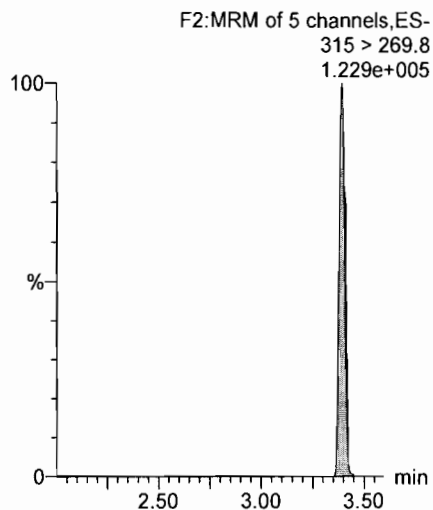
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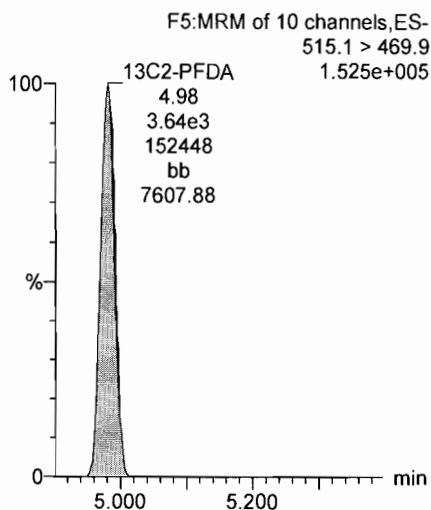
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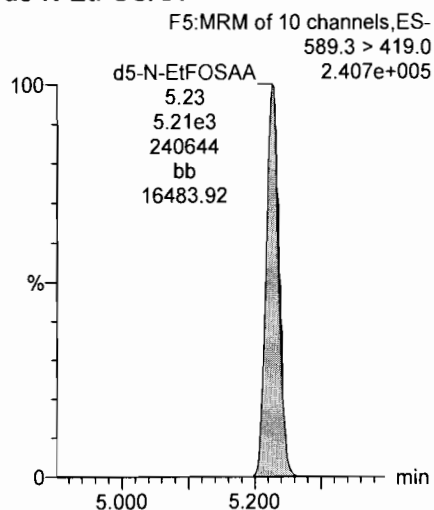
13C2-PFHxA



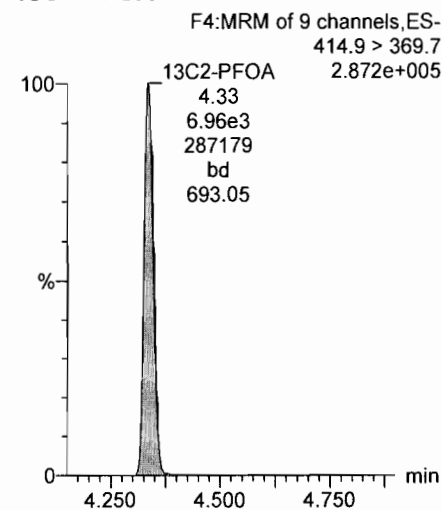
13C2-PFDA



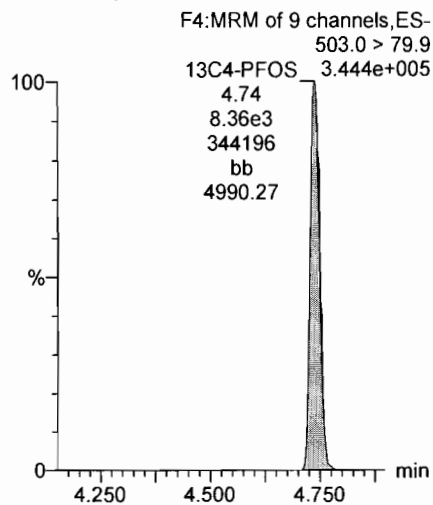
d5-N-EtFOSAA



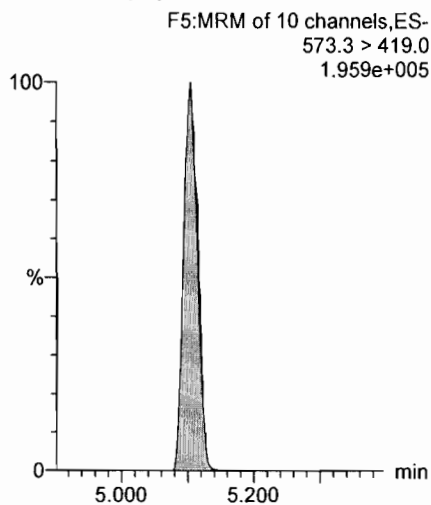
13C2-PFOA



13C4-PFOS



d3-N-MeFOSAA



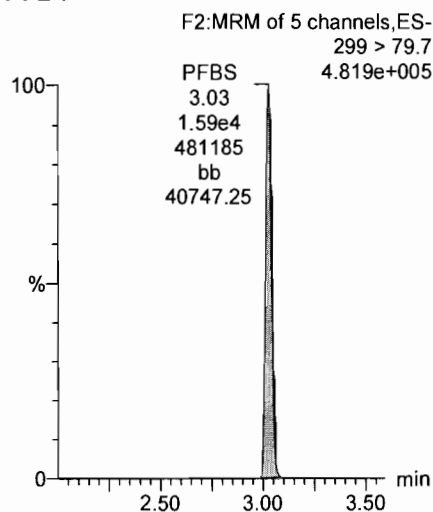
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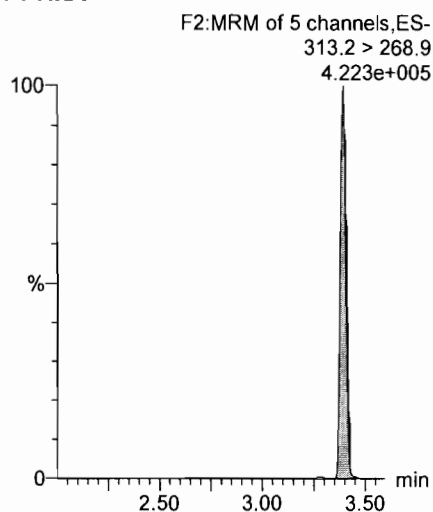
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Name: 180114G2_9, Date: 14-Jan-2018, Time: 18:42:03, ID: ST180114G2-8 PFC CS4 537 18A1208, Description: PFC CS4 537 18A1208

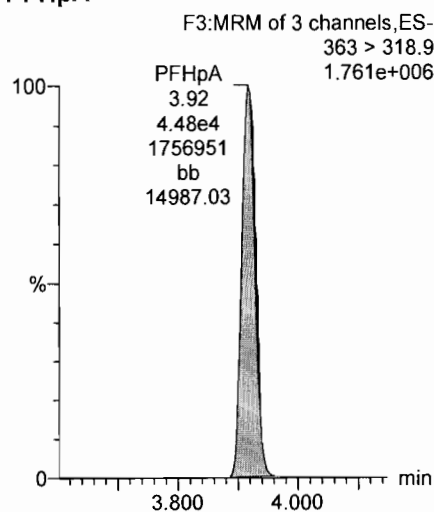
PFBS



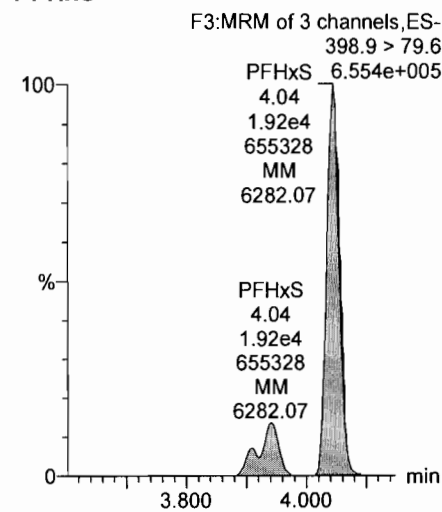
PFHxA



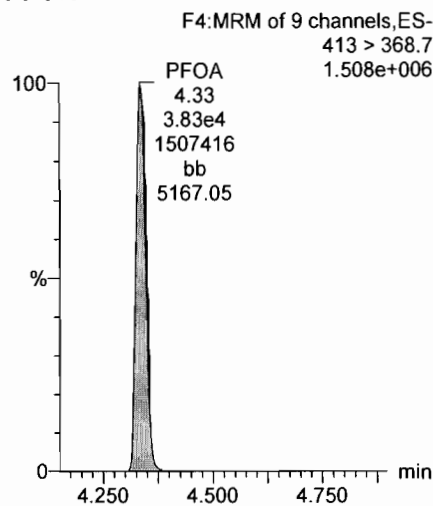
PFHpA



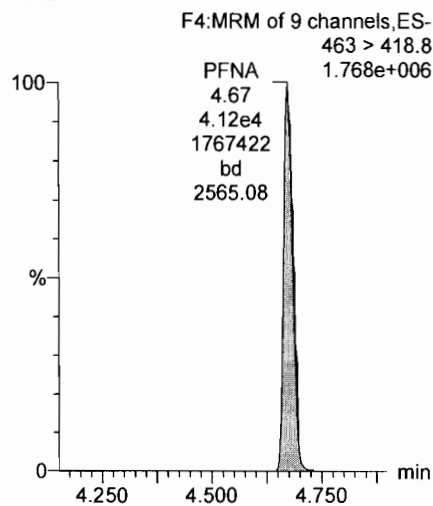
PFHxS



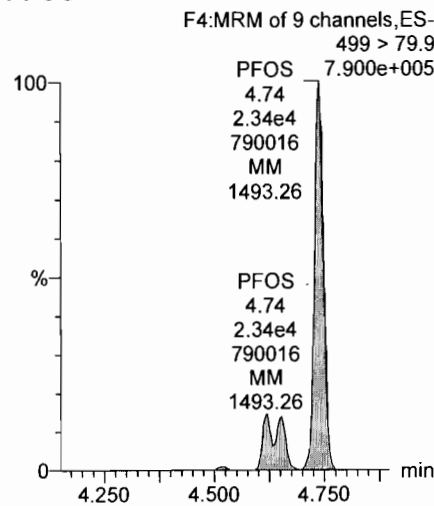
PFOA



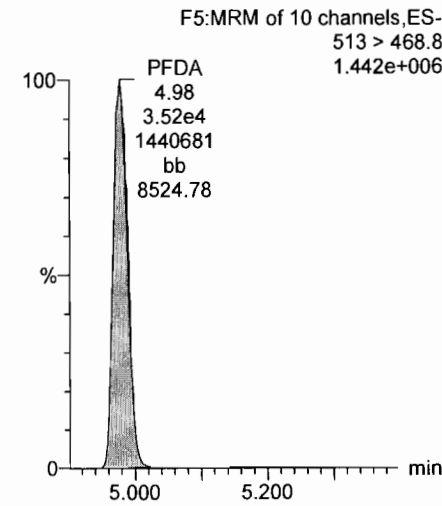
PFNA



PFOS



PFDA



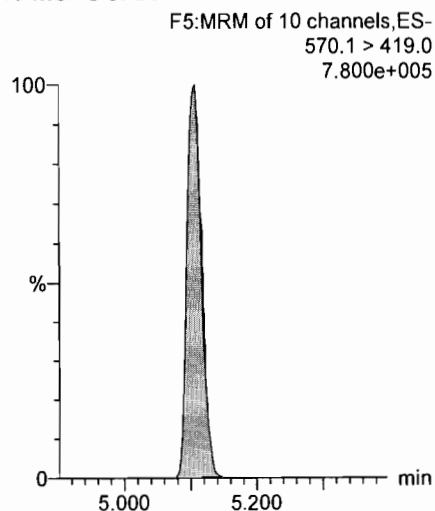
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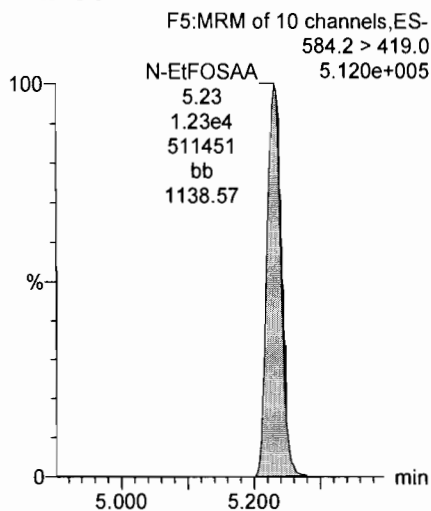
Printed: Monday, January 15, 2018 10:12:39 Pacific Standard Time

Name: 180114G2_9, Date: 14-Jan-2018, Time: 18:42:03, ID: ST180114G2-8 PFC CS4 537 18A1208, Description: PFC CS4 537 18A1208

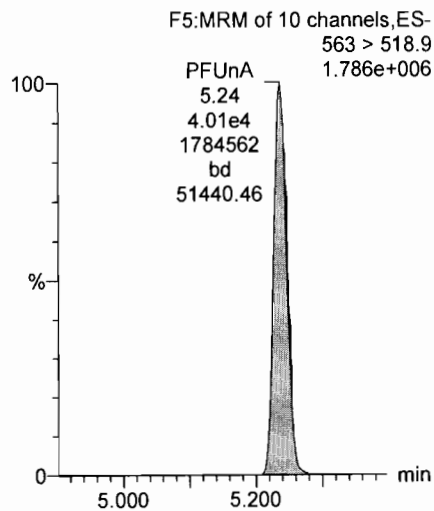
N-MeFOSAA



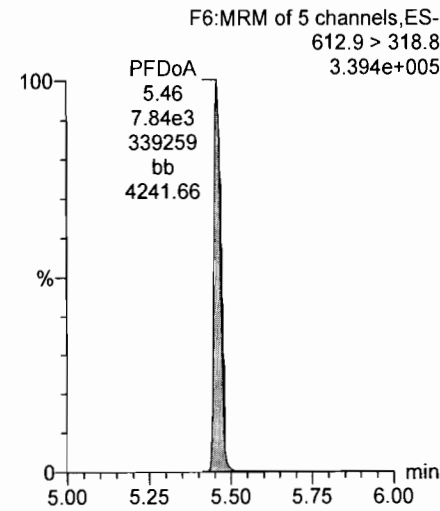
N-EtFOSAA



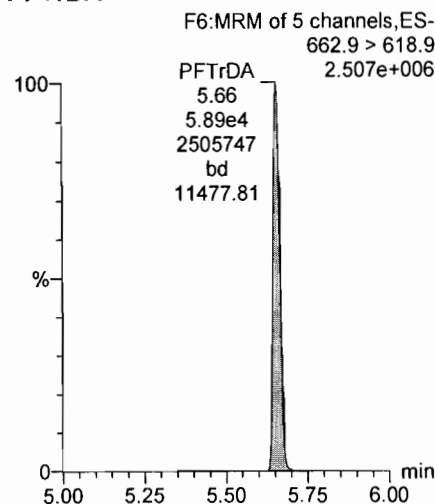
PFUnA



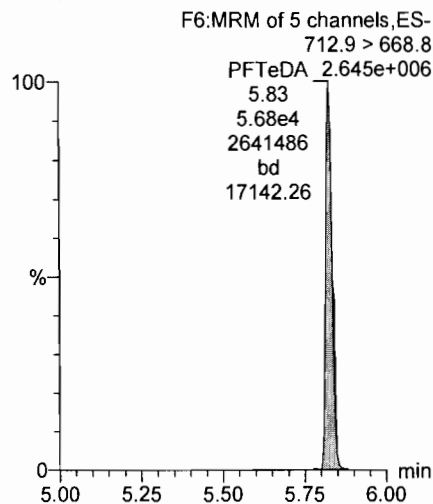
PFDaA



PFTTrDA



PFTeDA



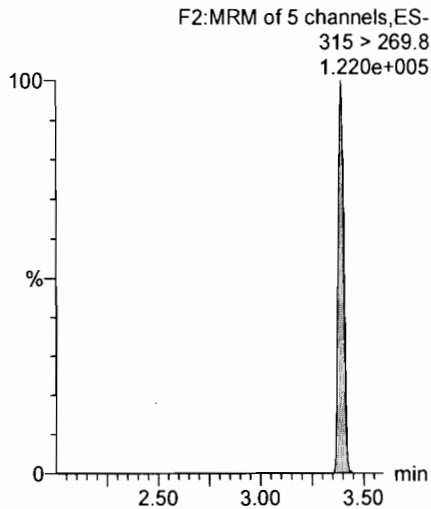
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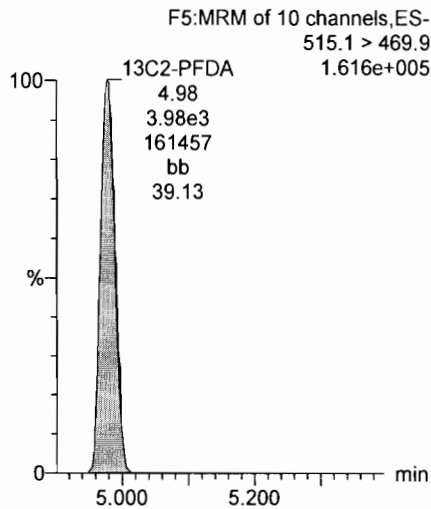
Printed: Monday, January 15, 2018 10:12:39 Pacific Standard Time

Name: 180114G2_9, Date: 14-Jan-2018, Time: 18:42:03, ID: ST180114G2-8 PFC CS4 537 18A1208, Description: PFC CS4 537 18A1208

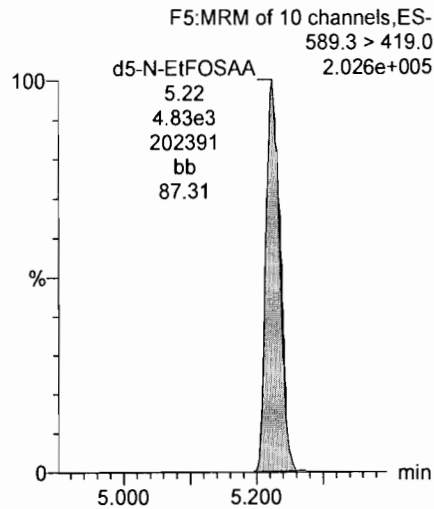
13C2-PFHxA



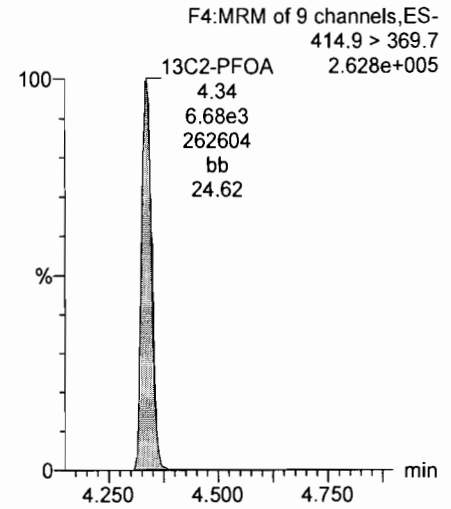
13C2-PFDA



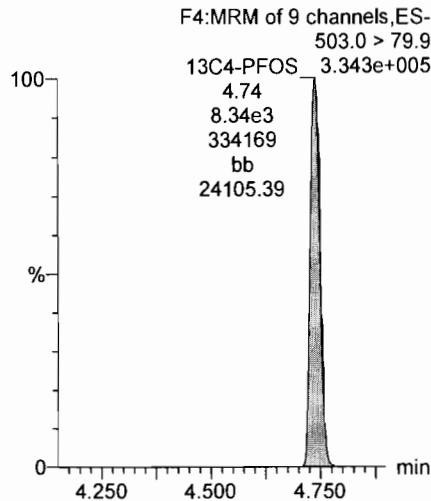
d5-N-EtFOSAA



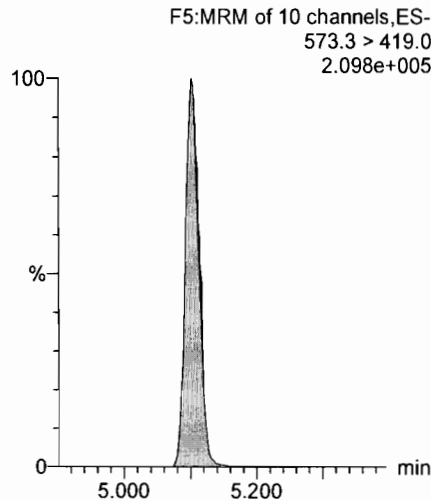
13C2-PFOA



13C4-PFOS



d3-N-MeFOSAA



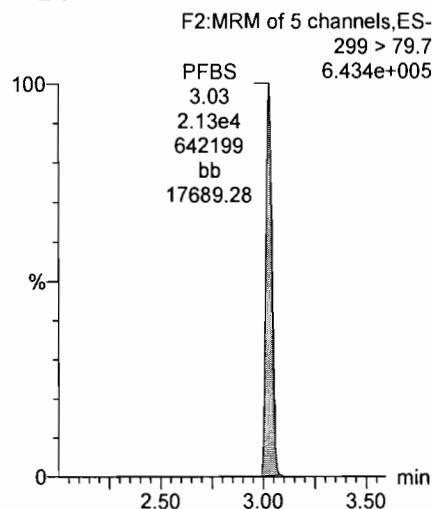
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Last Altered: Monday, January 15, 2018 10:11:44 Pacific Standard Time

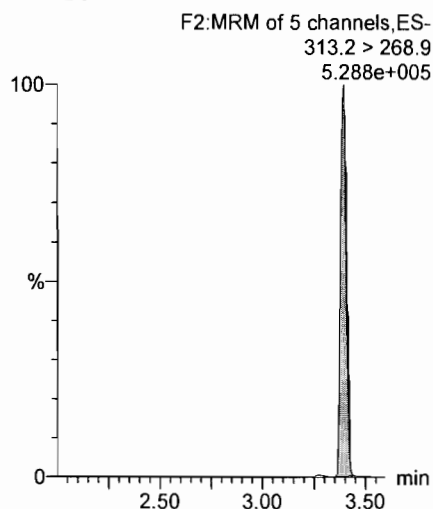
Printed: Monday, January 15, 2018 10:12:39 Pacific Standard Time

Name: 180114G2_10, Date: 14-Jan-2018, Time: 18:54:27, ID: ST180114G2-9 PFC CS5 537 18A1209, Description: PFC CS5 537 18A1209

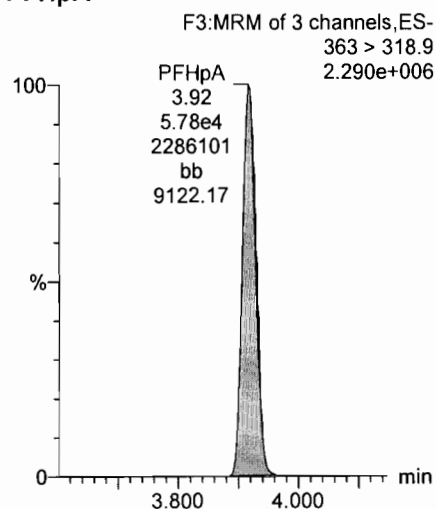
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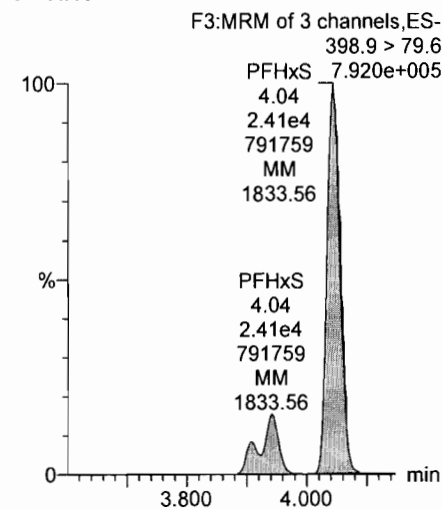
PFHxA



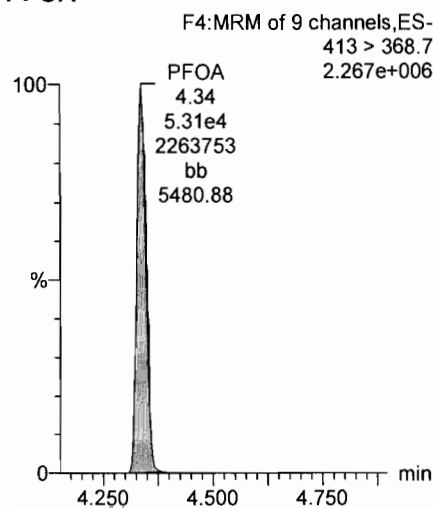
PFHpA



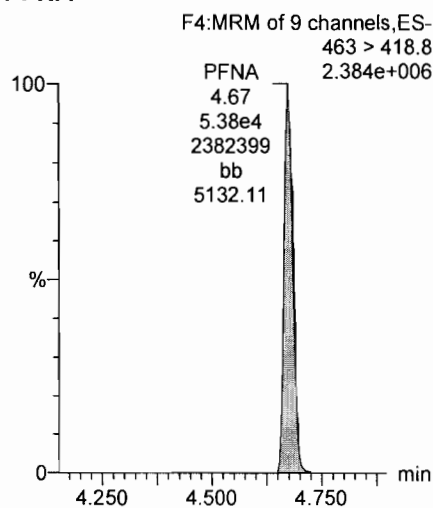
PFHxS



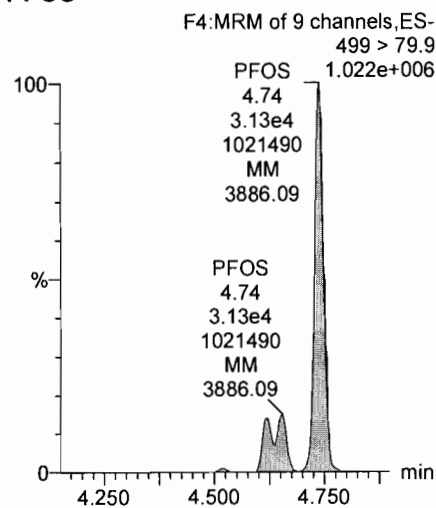
PFOA



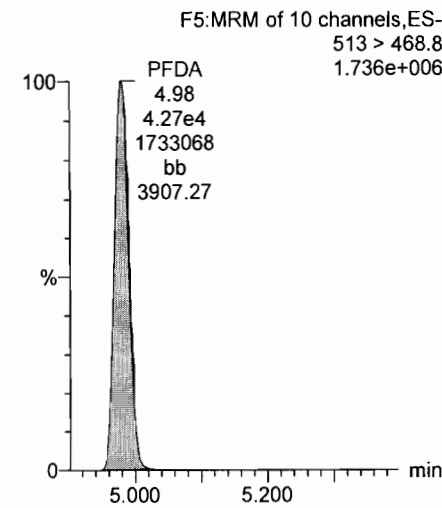
PFNA



PFOS



PFDA

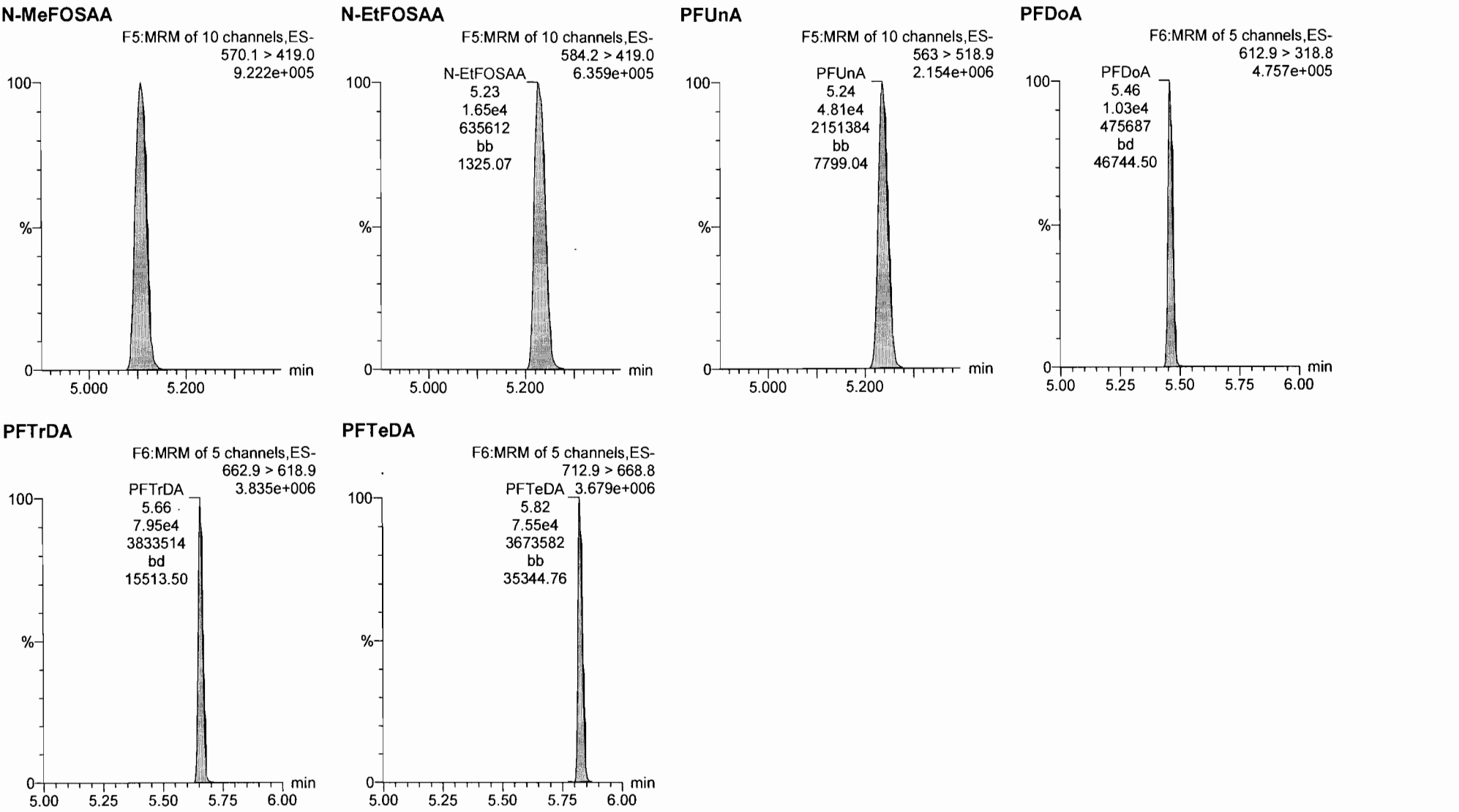


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Last Altered: Monday, January 15, 2018 10:11:44 Pacific Standard Time

Printed: Monday, January 15, 2018 10:12:39 Pacific Standard Time

Name: 180114G2_10, Date: 14-Jan-2018, Time: 18:54:27, ID: ST180114G2-9 PFC CS5 537 18A1209, Description: PFC CS5 537 18A1209



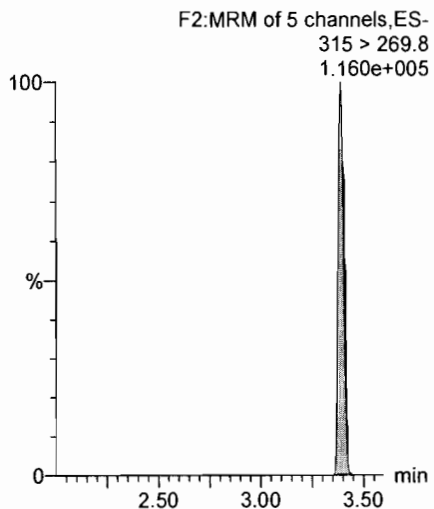
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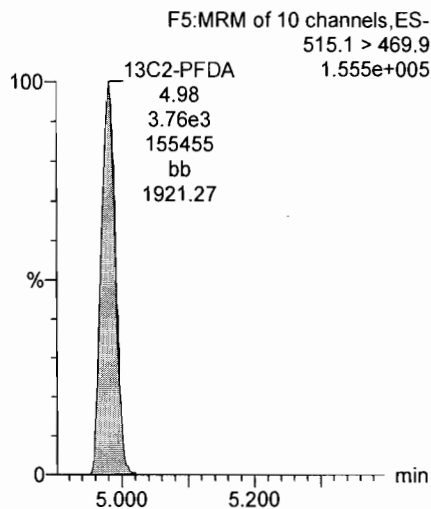
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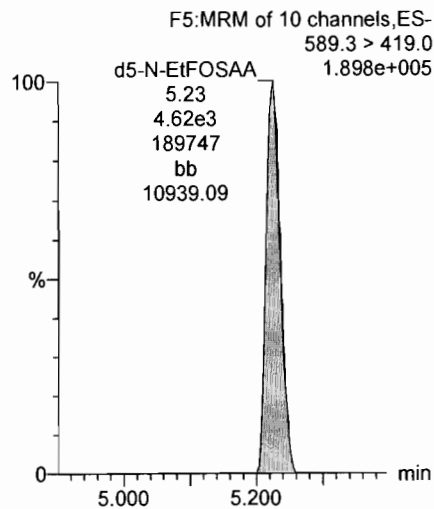
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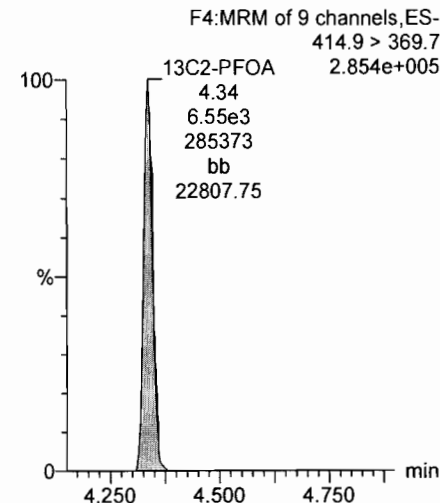
13C2-PFDA



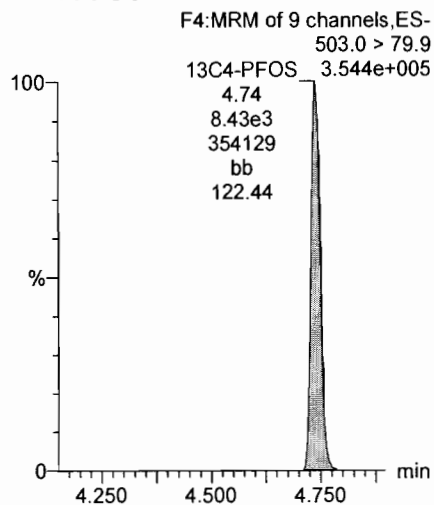
d5-N-EtFOSAA



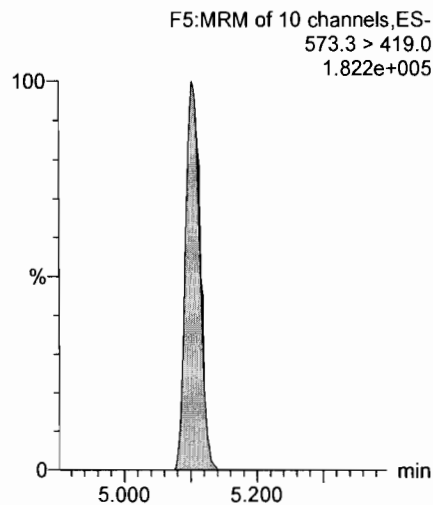
13C2-PFOA



13C4-PFOS



d3-N-MeFOSAA



Dataset: U:\G1.PRO\Results\2018\180114G2\180114G2-12.qld

Last Altered: Monday, January 15, 2018 10:25:11 Pacific Standard Time

Printed: Monday, January 15, 2018 10:25:38 Pacific Standard Time

Method: U:\G1.PRO\MethDB\PFAS_DW_L14_1214.mdb 11 Jan 2018 11:50:37

Calibration: U:\G1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180114G2_12, Date: 14-Jan-2018, Time: 19:19:20, ID: ICV180114G2-1 PFC ICV 537 18A1210, Description: PFC ICV 537 18A1210

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	2.90e3	9.55e3	1.0000		3.03	3.03	8.70	10.528	105.3
2	2 PFHxA	313.2 > 268.9	2.01e3	7.49e3	1.0000		3.39	3.39	2.68	10.750	107.5
3	3 PFHpA	363 > 318.9	6.58e3	7.49e3	1.0000		3.91	3.92	8.78	10.002	100.0
4	4 PFHxS	398.9 > 79.6	3.31e3	9.55e3	1.0000		4.02	4.04	9.96	10.772	107.7
5	5 PFOA	413 > 368.7	6.47e3	7.49e3	1.0000		4.34	4.34	8.64	11.054	110.5
6	6 PFNA	463 > 418.8	6.75e3	7.49e3	1.0000		4.69	4.68	9.00	11.015	110.2
7	7 PFOS	499 > 79.9	4.16e3	9.55e3	1.0000		4.74	4.74	12.5	10.999	110.0
8	8 PFDA	513 > 468.8	5.15e3	7.49e3	1.0000		4.91	4.98	6.87	9.146	91.5
9	9 N-MeFOSAA	570.1 > 419.0	2.65e3	4.81e3	1.0000		5.04	5.10	22.1	10.635	106.3
10	10 N-EtFOSAA	584.2 > 419.0	2.10e3	4.81e3	1.0000		5.22	5.23	17.5	12.112	121.1
11	11 PFUnA	563 > 518.9	6.40e3	7.49e3	1.0000		5.18	5.24	8.54	11.176	111.8
12	12 PFDoA	612.9 > 318.8	1.23e3	7.49e3	1.0000		5.38	5.46	1.64	10.751	107.5
13	13 PFTTrDA	662.9 > 618.9	9.46e3	7.49e3	1.0000		5.60	5.66	12.6	10.618	106.2
14	14 PFTeDA	712.9 > 668.8	8.31e3	7.49e3	1.0000		5.77	5.83	11.1	9.784	97.8
15	15 13C2-PFHxA	315 > 269.8	3.88e3	7.49e3	1.0000	0.517	3.48	3.39	5.18	10.007	100.1
16	16 13C2-PFDA	515.1 > 469.9	4.26e3	7.49e3	1.0000	0.543	4.95	4.98	5.69	10.485	104.8
17	17 d5-N-EtFOSAA	589.3 > 419.0	4.82e3	4.81e3	1.0000	1.102	5.10	5.23	40.1	36.379	90.9
18	18 13C2-PFOA	414.9 > 369.7	7.49e3	7.49e3	1.0000	1.000	4.41	4.34	10.0	10.000	100.0
19	19 13C4-PFOS	503.0 > 79.9	9.55e3	9.55e3	1.0000	1.000	4.81	4.74	28.7	28.700	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	4.81e3	4.81e3	1.0000	1.000	5.16	5.10	40.0	40.000	100.0

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Dataset: U:\G1.PRO\Results\2018\180114G2\180114G2-12.qld

Last Altered: Monday, January 15, 2018 10:25:11 Pacific Standard Time

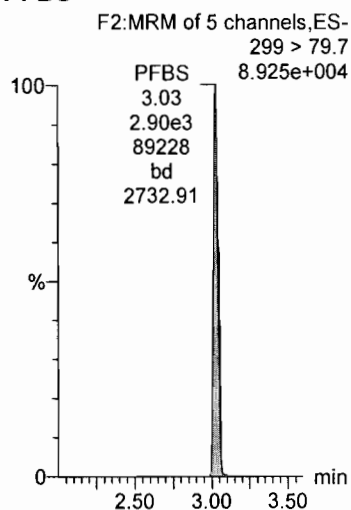
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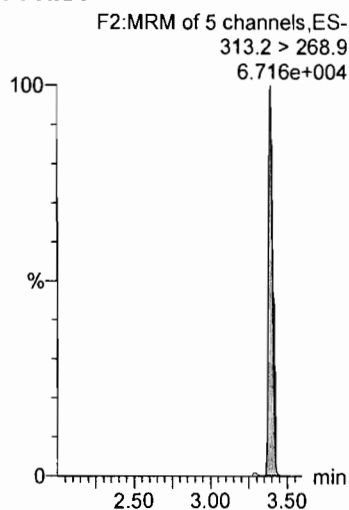
Calibration: U:\G1.PRO\CurveDB\C18_537_Q1_01-14-18_L14.cdb 15 Jan 2018 10:11:44

Name: 180114G2_12, Date: 14-Jan-2018, Time: 19:19:20, ID: ICV180114G2-1 PFC ICV 537 18A1210, Description: PFC ICV 537 18A1210

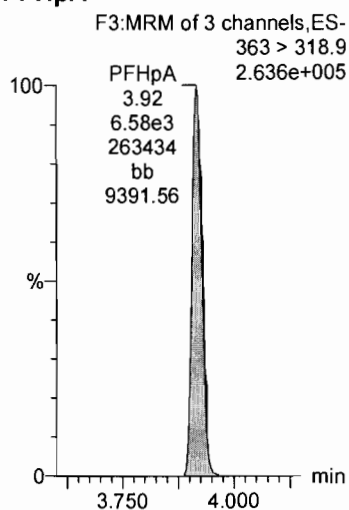
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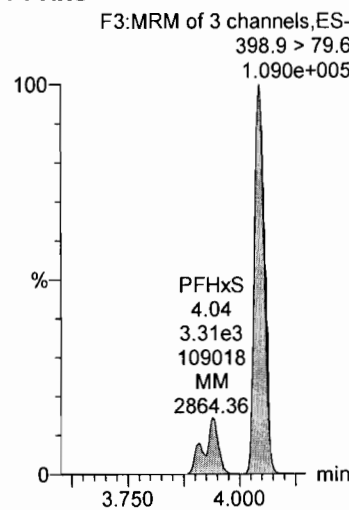
PFHxA



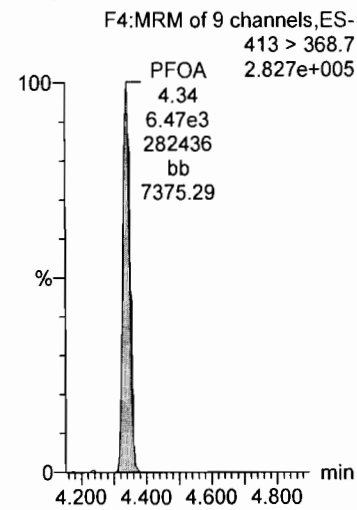
PFHpA



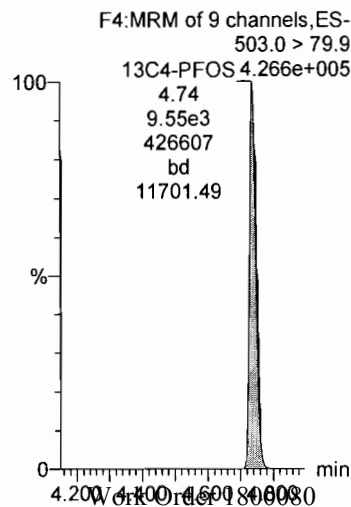
PFHxS



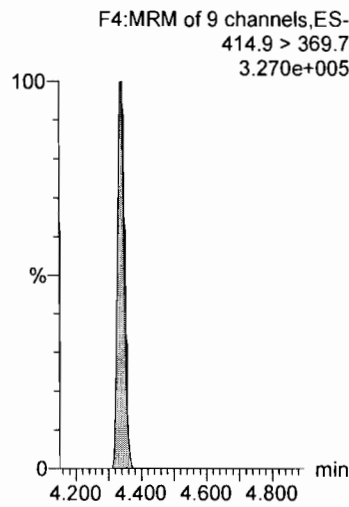
PFOA



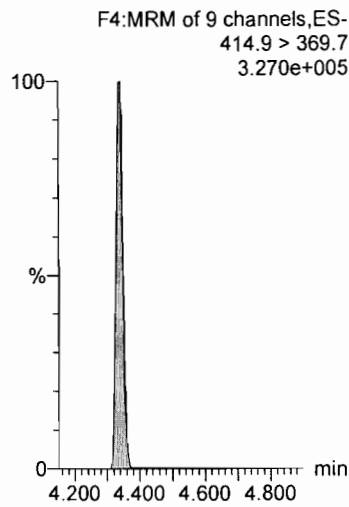
13C4-PFOS



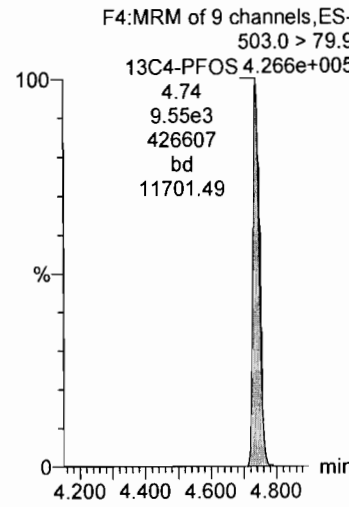
13C2-PFOA



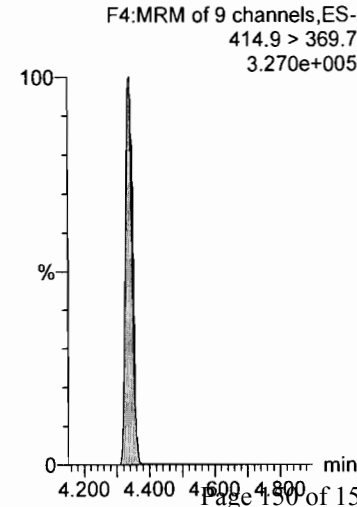
13C2-PFOA



13C4-PFOS



13C2-PFOA



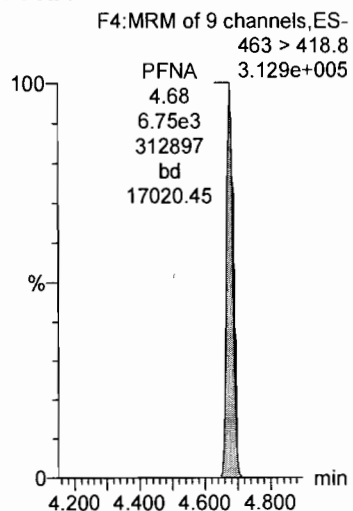
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Last Altered: Monday, January 15, 2018 10:25:11 Pacific Standard Time

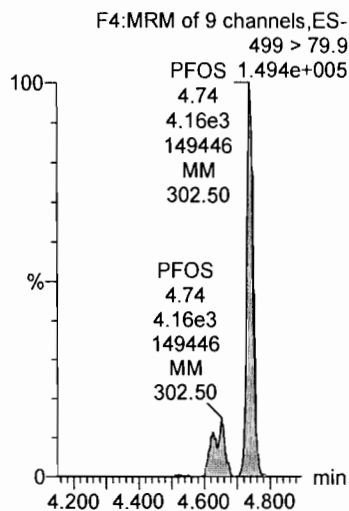
Printed: Monday, January 15, 2018 10:25:38 Pacific Standard Time

Name: 180114G2_12, Date: 14-Jan-2018, Time: 19:19:20, ID: ICV180114G2-1 PFC ICV 537 18A1210, Description: PFC ICV 537 18A1210

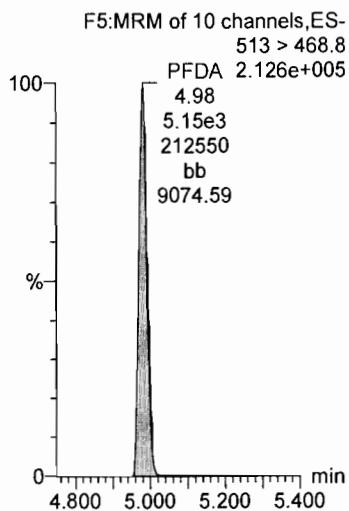
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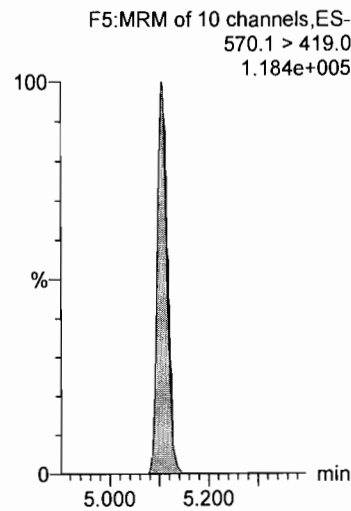
PFOS



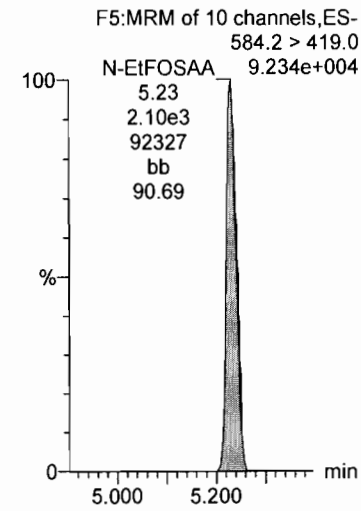
PFDA



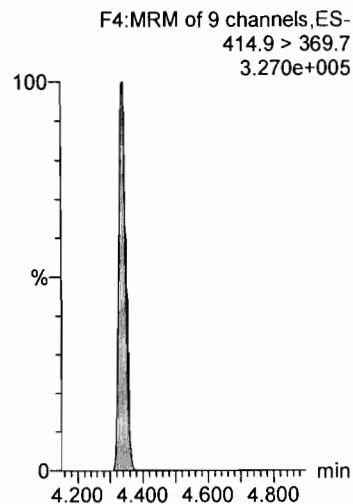
N-MeFOSAA



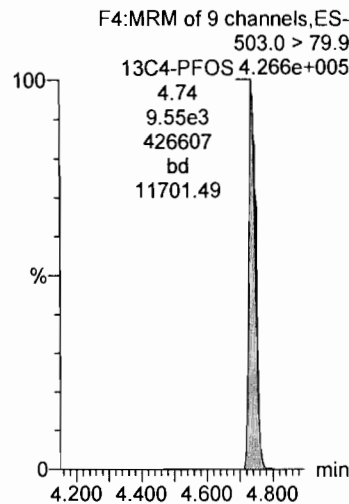
N-EtFOSAA



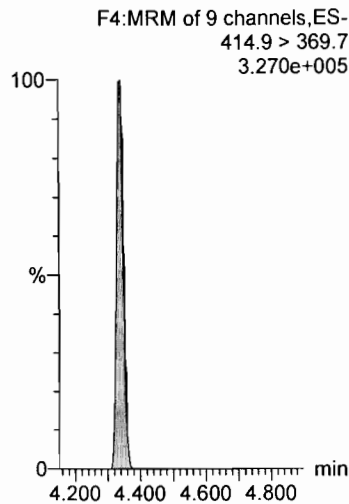
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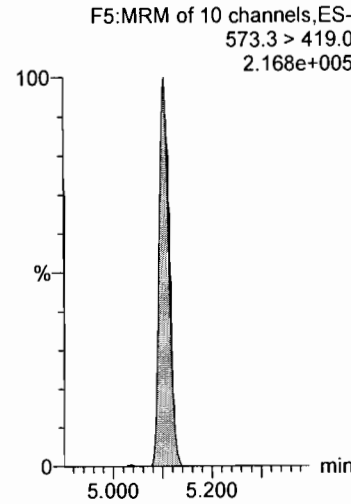
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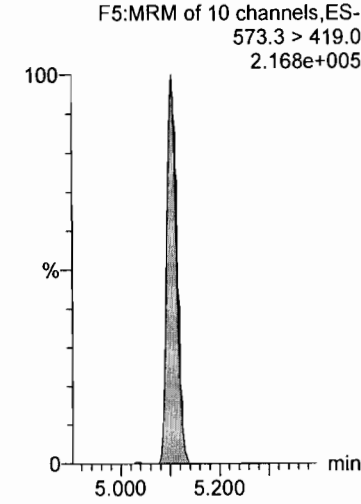
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



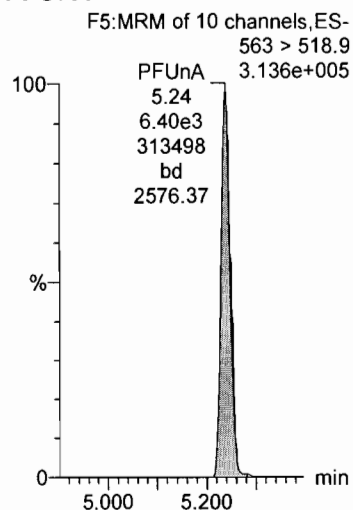
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Last Altered: Monday, January 15, 2018 10:25:11 Pacific Standard Time

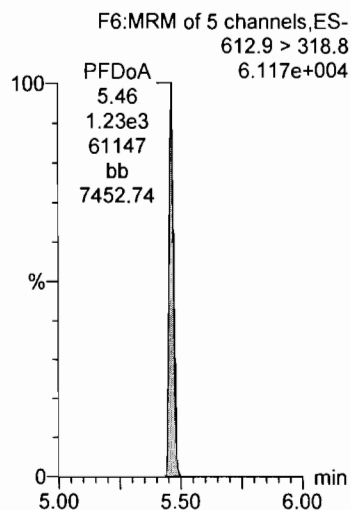
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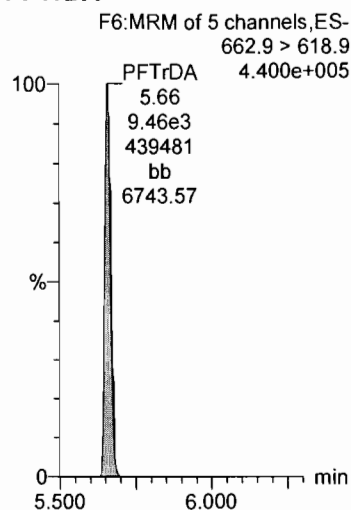
PFUnA



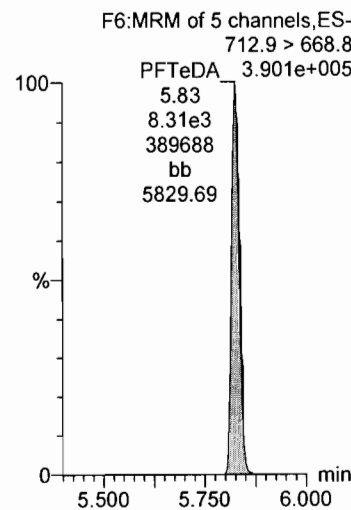
PFDaA



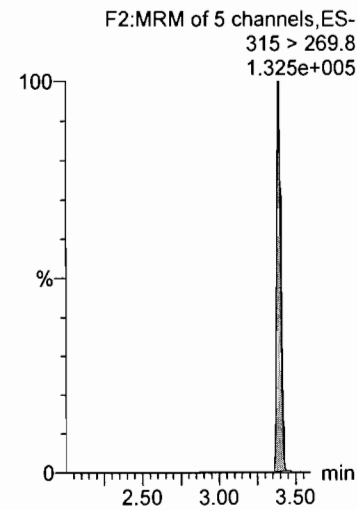
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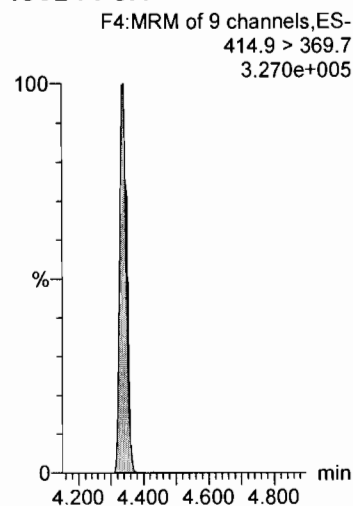
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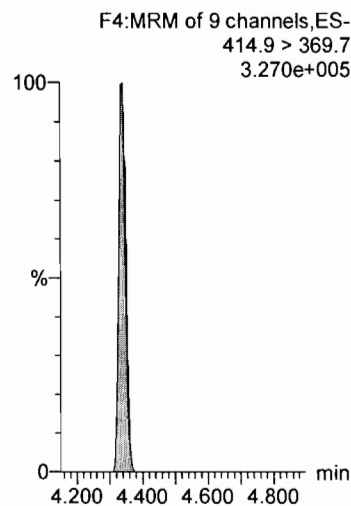
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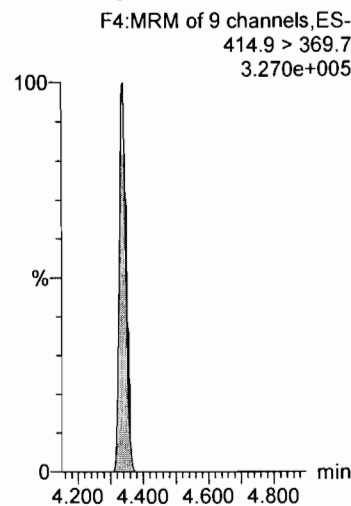
13C2-PFOA



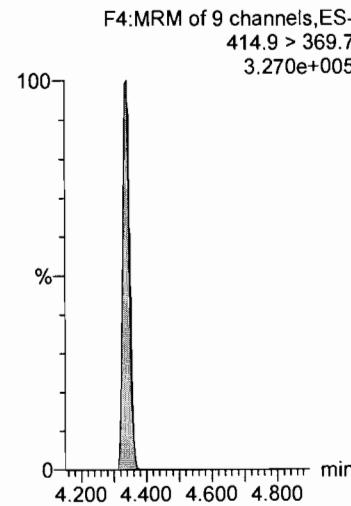
13C2-PFOA



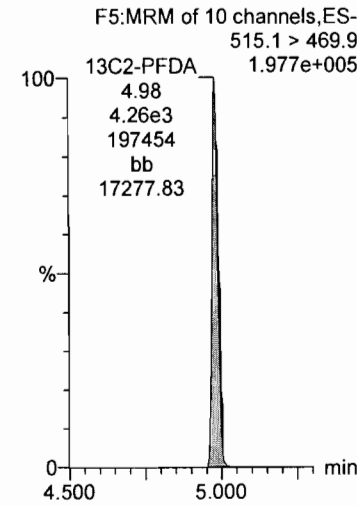
13C2-PFOA



13C2-PFOA



13C2-PFDA

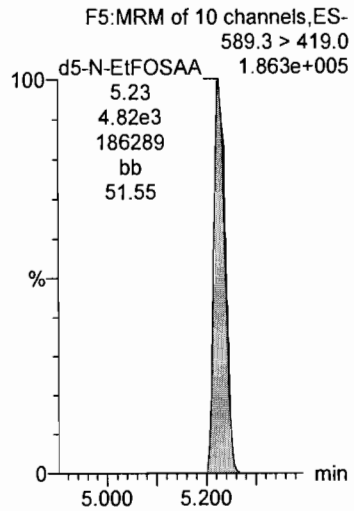


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Printed: Monday, January 15, 2018 10:25:38 Pacific Standard Time

Name: 180114G2_12, Date: 14-Jan-2018, Time: 19:19:20, ID: ICV180114G2-1 PFC ICV 537 18A1210, Description: PFC ICV 537 18A1210

d5-N-EtFOSAA



Results

Contract_ID	DO_CTO Number	Phase	Installation_ID	Sample_Name	CH2M_ Code	Analysis Group	Analytical Method	PRC_ Code	Lab_ Code	Lab_Name	Leachate Method	Sample_ Basis	Extraction Method	Result_ Type	Lab_QC_ Type	Sample_ Medium	QC_Level	DateTime_Collect ed	Date_Recei ved	Leachate Date	Leachate Time	Extraction Date	Extractio n_Time	Analysis_ Date
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2RW58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2RW58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
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N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL LABORATORY, INC.	NONE	WET	METHOD	000	REG	W	4	01/11/2018 09:28	01/12/2018			20180116	08:41:00	20180119
N6247016D9000	0008		CHERRY_POINT_MCAS	CH-AT-2FB58-0118	NONS	SVOA	537	ORG	VISTA	VISTA ANALYTICAL														

Analysis Time	Lab Sample_ID	Dilution	Run_ Number	Percent_ Moisture	Percent_ Lipid	Chem_Name	Analyte_ID	Analyte_ Value	Original_ Analyte_ Value	Result_ Units	Lab_ Qualifier	Validator_ Qualifier	GC_ Column_ Type	Analysis_ Result_ Type	Result_ Narrative	QC_ Control_ Limit_ Code	QC_ Accuracy_ Upper	QC_ Accuracy_ Lower	Control_L imit_ Date	QC_ Narrative	MDL	Detection_ Limit	QSM_ Version	DL	LOD	LOQ	SDG	Analysis_ Batch
00:17:00	1800080-01	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.98	NG_L	U		PR	TRG									5.1	0.442	4.98	9.97	1800080	S8A0063
00:17:00	1800080-01	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		2.85	NG_L	J		PR	TRG									5.1	1.08	4.98	9.97	1800080	S8A0063
00:17:00	1800080-01	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		1.43	NG_L	J		PR	TRG									5.1	1.04	4.98	9.97	1800080	S8A0063
00:17:00	1800080-01	1	-999			13C2-PFHxA	13C2-PFHxA		81.7	PCT_REC			PR			SLSA	130	70					5.1				1800080	S8A0063
00:17:00	1800080-01	1	-999			13C2-PFDA	13C2-PFDA		97.3	PCT_REC			PR			SLSA	130	70					5.1				1800080	S8A0063
00:30:00	1800080-02	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		5.00	NG_L	U		PR	TRG									5.1	0.443	5.00	9.99	1800080	S8A0063
00:30:00	1800080-02	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		5.00	NG_L	U		PR	TRG									5.1	1.08	5.00	9.99	1800080	S8A0063
00:30:00	1800080-02	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		5.00	NG_L	U		PR	TRG									5.1	1.04	5.00	9.99	1800080	S8A0063
00:30:00	1800080-02	1	-999			13C2-PFHxA	13C2-PFHxA		85.1	PCT_REC			PR			SLSA	130	70					5.1				1800080	S8A0063
00:30:00	1800080-02	1	-999			13C2-PFDA	13C2-PFDA		89.5	PCT_REC			PR			SLSA	130	70					5.1				1800080	S8A0063
00:42:00	1800080-03	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		5.06	NG_L	U		PR	TRG									5.1	0.449	5.06	10.1	1800080	S8A0063
00:42:00	1800080-03	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		5.06	NG_L	U		PR	TRG									5.1	1.10	5.06	10.1	1800080	S8A0063
00:42:00	1800080-03	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		5.06	NG_L	U		PR	TRG									5.1	1.05	5.06	10.1	1800080	S8A0063
00:42:00	1800080-03	1	-999			13C2-PFHxA	13C2-PFHxA		77.4	PCT_REC			PR			SLSA	130	70					5.1				1800080	S8A0063
00:42:00	1800080-03	1	-999			13C2-PFDA	13C2-PFDA		80.8	PCT_REC			PR			SLSA	130	70					5.1				1800080	S8A0063
00:54:00	1800080-04	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.96	NG_L	U		PR	TRG									5.1	0.440	4.96	9.94	1800080	S8A0063
00:54:00	1800080-04	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.96	NG_L	U		PR	TRG									5.1	1.07	4.96	9.94	1800080	S8A0063
00:54:00	1800080-04	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.96	NG_L	U		PR	TRG									5.1	1.03	4.96	9.94	1800080	S8A0063
00:54:00	1800080-04	1	-999			13C2-PFHxA	13C2-PFHxA		85.9	PCT_REC			PR			SLSA	130	70					5.1				1800080	S8A0063
00:54:00	1800080-04	1	-999			13C2-PFDA	13C2-PFDA		90.8	PCT_REC			PR			SLSA	130	70					5.1				1800080	S8A0063
01:07:00	1800080-05	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		4.90	NG_L	U		PR	TRG									5.1	0.434	4.90	9.79	1800080	S8A0063
01:07:00	1800080-05	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		4.90	NG_L	U		PR	TRG									5.1	1.06	4.90	9.79	1800080	S8A0063
01:07:00	1800080-05	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		4.90	NG_L	U		PR	TRG									5.1	1.02	4.90	9.79	1800080	S8A0063
01:07:00	1800080-05	1	-999			13C2-PFHxA	13C2-PFHxA		94.8	PCT_REC			PR			SLSA	130	70					5.1				1800080	S8A0063
01:07:00	1800080-05	1	-999			13C2-PFDA	13C2-PFDA		94.5	PCT_REC			PR			SLSA	130	70					5.1				1800080	S8A0063
01:19:00	1800080-06	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		5.00	NG_L	U		PR	TRG									5.1	0.443	5.00	10.0	1800080	S8A0063
01:19:00	1800080-06	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		5.00	NG_L	U		PR	TRG									5.1	1.08	5.00	10.0	1800080	S8A0063
01:19:00	1800080-06	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		5.00	NG_L	U		PR	TRG									5.1	1.04	5.00	10.0	1800080	S8A0063
01:19:00	1800080-06	1	-999			13C2-PFHxA	13C2-PFHxA		91.5	PCT_REC			PR			SLSA	130	70					5.1				1800080	S8A0063
01:19:00	1800080-06	1	-999			13C2-PFDA	13C2-PFDA		93.5	PCT_REC			PR			SLSA	130	70					5.1				1800080	S8A0063
01:32:00	1800080-07	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		1.13	NG_L	J		PR	TRG									5.1	0.456	5.14	10.3	1800080	S8A0063
01:32:00	1800080-07	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		10.4	NG_L			PR	TRG									5.1	1.11	5.14	10.3	1800080	S8A0063
01:32:00	1800080-07	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		60.0	NG_L			PR	TRG									5.1	1.07	5.14	10.3	1800080	S8A0063
01:32:00	1800080-07	1	-999			13C2-PFHxA	13C2-PFHxA		88.0	PCT_REC			PR			SLSA	130	70					5.1				1800080	S8A0063
01:32:00	1800080-07	1	-999			13C2-PFDA	13C2-PFDA		86.6	PCT_REC			PR			SLSA	130	70					5.1				1800080	S8A0063
01:44:00	1800080-08	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		5.10	NG_L	U		PR	TRG									5.1	0.452	5.10	10.2	1800080	S8A0063
01:44:00	1800080-08	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		5.10	NG_L	U		PR	TRG									5.1	1.10	5.10	10.2	1800080	S8A0063
01:44:00	1800080-08	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		5.10	NG_L	U		PR	TRG									5.1	1.06	5.10	10.2	1800080	S8A0063
01:44:00	1800080-08	1	-999			13C2-PFHxA	13C2-PFHxA		76.8	PCT_REC			PR			SLSA	130	70					5.1				1800080	S8A0063
01:44:00	1800080-08	1	-999			13C2-PFDA	13C2-PFDA		85.1	PCT_REC			PR			SLSA	130	70					5.1				1800080	S8A0063
17:52:00	B8A0083-BLK1	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		5.00	NG_L	U		PR	TRG									5.1	0.443	5.00	10.0	1800080	S8A0063
17:52:00	B8A0083-BLK1	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		5.00	NG_L	U		PR	TRG									5.1	1.08	5.00	10.0	1800080	S8A0063
17:52:00	B8A0083-BLK1	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		5.00	NG_L	U		PR	TRG									5.1	1.04	5.00	10.0	1800080	S8A0063
17:52:00	B8A0083-BLK1	1	-999			13C2-PFHxA	13C2-PFHxA		85.0	PCT_REC			PR	SUR		SLSA	130	70					5.1				1800080	S8A0063
17:52:00	B8A0083-BLK1	1	-999			13C2-PFDA	13C2-PFDA		90.0	PCT_REC			PR	SUR		SLSA	130	70					5.1				1800080	S8A0063
18:54:00	B8A0083-BS1	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		15.9	NG_L			PR	TRG		LSA	130	70					5.1	0.443	5.00	10.0	1800080	S8A0063
18:54:00	B8A0083-BS1	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		20.7	NG_L			PR	TRG		LSA	130	70					5.1	1.08	5.00	10.0	1800080	S8A0063
18:54:00	B8A0083-BS1	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		16.7	NG_L			PR	TRG		LSA	130	70					5.1	1.04	5.00	10.0	1800080	S8A0063
18:54:00	B8A0083-BS1	1	-999			13C2-PFHxA	13C2-PFHxA		92.4	PCT_REC			PR	SUR		LSA	130	70					5.1				1800080	S8A0063
18:54:00	B8A0083-BS1	1	-999			13C2-PFDA	13C2-PFDA		106	PCT_REC			PR	SUR		LSA	130	70					5.1				1800080	S8A0063
19:07:00	B8A0083-MS1	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		17.9	NG_L			PR	TRG		LSA	130	70					5.1	0.460	5.19	10.4	1800080	S8A0063
19:07:00	B8A0083-MS1	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		27.7	NG_L			PR	TRG		LSA	130	70					5.1	1.12	5.19	10.4	1800080	S8A0063
19:07:00	B8A0083-MS1	1	-999			Perfluorooctane Sulfonate (PFOS)	1763-23-1		75.1	NG_L			PR	TRG		LSA	130	70					5.1	1.08	5.19	10.4	1800080	S8A0063
19:07:00	B8A0083-MS1	1	-999			13C2-PFHxA	13C2-PFHxA		89.0	PCT_REC			PR	SUR		LSA	130	70					5.1				1800080	S8A0063
19:07:00	B8A0083-MS1	1	-999			13C2-PFDA	13C2-PFDA		84.3	PCT_REC			PR	SUR		LSA	130	70					5.1				1800080	S8A0063
19:19:00	B8A0083-MSD1	1	-999			Perfluorobutanesulfonic acid (PFBS)	375-73-5		14.6	NG_L			PR	TRG		LSA	130	70					5.1	0.450	5.08	10.2	1800080	S8A0063
19:19:00	B8A0083-MSD1	1	-999			Perfluorooctanoic acid (PFOA)	335-67-1		28.1	NG_L			PR	TRG		LSA	130	70					5.1	1.10	5.08	10.2	1800080	S8A

**DATA VALIDATION SUMMARY REPORT
MCOLF ATLANTIC, NORTH CAROLINA**

Client: CH2M HILL, Inc., Corvallis, Oregon
SDG: 1800080
Laboratory: Vista Analytical Laboratory, El Dorado Hills, California
Site: MCOLF Atlantic, North Carolina
Date: January 29, 2018

PFCs			
EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	CH-AT-2RW58-0118	1800080-1	Water
2	CH-AT-2FB58-0118	1800080-2	Water
3	CH-AT-2RW58B-0118	1800080-3	Water
4	CH-AT-2FB58B-0118	1800080-4	Water
5	CH-AT-2RW58C-0118	1800080-5	Water
6	CH-AT-2FB58C-0118	1800080-6	Water
7	CH-AT-1RW146-0118	1800080-7	Water
7MS	CH-AT-1RW146-0118MS	1800080-7MS	Water
7MSD	CH-AT-1RW146-0118MSD	1800080-7MSD	Water
8	CH-AT-1FB146-0118	1800080-8	Water

A full data validation was performed on the analytical data for four water samples and four aqueous field blank samples collected on January 11, 2018 by CH2M HILL at the MCOLF Atlantic site in Atlantic, North Carolina. The samples were analyzed under the EPA Method "Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS)".

Specific method references are as follows:

Analysis
PFCs

Method References
USEPA Method 537

The data have been validated according to the protocols and quality control (QC) requirements of the analytical method, and the U.S. Department of Defense (DoD) Quality Systems Manual (QSM), Version 5.0 (July 2013) and the USEPA National Functional Guidelines for Organic Data Review as follows:

- The USEPA "Contract Laboratories Program National Functional Guidelines for Organic Superfund Methods Data Review," January 2017;
- and the reviewer's professional judgment.

The following data quality indicators were reviewed for this report:

Organics

- Date Completeness, Case Narrative & Custody Documentation
- Holding times
- Liquid Chromatography/Mass Spectrometry (LC/MS) Tuning
- Initial and continuing calibration summaries
- Method blank and field QC blank contamination
- Surrogate Spike recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) recoveries
- Internal standard area and retention time summary forms
- Target Compound Identification
- Compound Quantitation
- Field Duplicate sample precision

A full (Level IV) data validation was performed with this review including a recalculation of 10% of the detected results in the samples.

Data Usability Assessment

There were no rejections of data.

Overall the data is acceptable for the intended purposes. There were no qualifications.

Perfluorinated Compounds (PFCs)

Data Completeness, Case Narrative & Custody Documentation

- The case narrative and chain-of-custody documentation were included in the data package as required. All criteria were met.

Holding Times

- All samples were extracted within 14 days for water samples and analyzed within 28 days.

LC/MS Tuning

- All criteria were met.

Initial Calibration

- All relative standard deviation (%RSD) and/or correlation coefficients criteria were met.

Continuing Calibration

- All percent difference (%D) and RRF criteria were met.

Method Blank

- The method blanks were free of contamination.

Field QC Blank

- Field QC samples were free of contamination.

Blank ID	Compound	Conc. ng/L	Qualifier	Affected Samples
CH-AT-2FB58-0118	None - ND	-	-	-
CH-AT-2FB58B-0118	None - ND	-	-	-
CH-AT-2FB58C-0118	None - ND	-	-	-
CH-AT-1FB146-0118	None - ND	-	-	-

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate %R values.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- The MS/MSD samples exhibited acceptable percent recoveries (%R) and RPD values.

Laboratory Control Samples

- The LCS samples exhibited acceptable percent recoveries (%R).

Internal Standard (IS) Area Performance

- All internal standards met response and retention time (RT) criteria.

Target Compound Identification

- All mass spectra and quantitation criteria were met.

Compound Quantitation

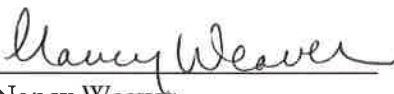
- All criteria were met.

Field Duplicate Sample Precision

- Field duplicate samples were not collected.

Please contact the undersigned at (757) 564-0090 if you have any questions or need further information.

Signed:


Nancy Weaver
Senior Chemist

Dated: 1/31/18

Data Qualifier	Definition
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The analyte is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
NJ	The analysis has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the samples.
UJ	The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the samples.

Sample ID: CH-AT-2RW58-0118									
Client Data					Laboratory Data				
Name:	CH2M Hill	Matrix:	Drinking Water		Lab Sample:	1800080-01	Column:	BEH C18	
Project:	MCOLF ATLANTIC	Date Collected:	11-Jan-18 09:28		Date Received:	12-Jan-18 12:52			
Location:	Drinking Water								
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Dilution
PFBS	ND	0.442	4.98	9.97		B8A0083	16-Jan-18	0.251 L	19-Jan-18 00:17
PFOA	2.85	1.08	4.98	9.97	J	B8A0083	16-Jan-18	0.251 L	19-Jan-18 00:17
PFOS	1.43	1.04	4.98	9.97	J	B8A0083	16-Jan-18	0.251 L	19-Jan-18 00:17
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Dilution
13C2-PFHxA	SURR	81.7	70 - 130			B8A0083	16-Jan-18	0.251 L	19-Jan-18 00:17
13C2-PFDA	SURR	97.3	70 - 130			B8A0083	16-Jan-18	0.251 L	19-Jan-18 00:17
DL - Detection Limit LOD - Limit of Detection LOQ - Limit of quantitation LCL-UCL- Lower control limit - upper control limit Results reported to the DL When reported, PFHxA, PFOA and PFOS include both linear and branched isomers Only the linear isomer is reported for all other analytes									

NW 129/18

Sample ID: CH-AT-2FB58-0118										EPA Method 537									
Client Data					Laboratory Data														
Name:	CH2M Hill	Matrix:	Drinking Water		Lab Sample:	1800080-02	Column:	BEH C18											
Project:	MCOLF ATLANTIC	Date Collected:	11-Jan-18 09:28		Date Received:	12-Jan-18 12:52													
Location:	Drinking Water																		
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution									
PFBS	ND	0.443	5.00	9.99		B8A0083	16-Jan-18	0.250 L	19-Jan-18 00:30	1									
PFOA	ND	1.08	5.00	9.99		B8A0083	16-Jan-18	0.250 L	19-Jan-18 00:30	1									
PFOS	ND	1.04	5.00	9.99		B8A0083	16-Jan-18	0.250 L	19-Jan-18 00:30	1									
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution									
13C2-PFHxA	SURR	85.1	70 - 130			B8A0083	16-Jan-18	0.250 L	19-Jan-18 00:30	1									
13C2-PFDA	SURR	89.5	70 - 130			B8A0083	16-Jan-18	0.250 L	19-Jan-18 00:30	1									

DL - Detection Limit
 LOD - Limit of Detection
 LOQ - Limit of quantitation
 LCL-UCL - Lower control limit - upper control limit
 Results reported to the DL

When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
 Only the linear isomer is reported for all other analytes

12/29/18

Sample ID: CH-AT-2RW58B-0118											EPA Method 537		
Client Data				Laboratory Data									
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800080-03	Batch	Extracted	Samp Size	Analyzed	Dilution	Column:	BEH C18	
Project:	MCOLF ATLANTIC	Date Collected:	11-Jan-18 09:30	Date Received:	12-Jan-18 12:52								
Location:	Drinking Water												
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution			
PFBS	ND	0.449	5.06	10.1		B8A0083	16-Jan-18	0.247 L	19-Jan-18 00:42	1			
PFOA	ND	1.10	5.06	10.1		B8A0083	16-Jan-18	0.247 L	19-Jan-18 00:42	1			
PFOS	ND	1.05	5.06	10.1		B8A0083	16-Jan-18	0.247 L	19-Jan-18 00:42	1			
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution				
13C2-PFHxA	SURR	77.4	70 - 130		B8A0083	16-Jan-18	0.247 L	19-Jan-18 00:42	1				
13C2-PFDA	SURR	80.8	70 - 130		B8A0083	16-Jan-18	0.247 L	19-Jan-18 00:42	1				
DL - Detection Limit	LOD - Limit of Detection	LCL-UCL- Lower control limit - upper control limit	Results reported to the DL	When reported, PFHxS, PFOA and PFOS include both linear and branched isomers									
	LOQ - Limit of quantitation			Only the linear isomer is reported for all other analytes									

11/29/18

Sample ID: CH-AT-2FB58B-0118										EPA Method 537			
Client Data				Laboratory Data									
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800080-04	Column:	BEH C18						
Project:	MCOLF ATLANTIC	Date Collected:	11-Jan-18 09:30	Date Received:	12-Jan-18 12:52								
Location:	Drinking Water												
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution			
PFBS	ND	0.440	4.96	9.94		B8A0083	16-Jan-18	0.252 L	19-Jan-18 00:54	1			
PFOA	ND	1.07	4.96	9.94		B8A0083	16-Jan-18	0.252 L	19-Jan-18 00:54	1			
PFOS	ND	1.03	4.96	9.94		B8A0083	16-Jan-18	0.252 L	19-Jan-18 00:54	1			
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution				
13C2-PFHxA	SURR	85.9	70 - 130		B8A0083	16-Jan-18	0.252 L	19-Jan-18 00:54	1				
13C2-PFDA	SURR	90.8	70 - 130		B8A0083	16-Jan-18	0.252 L	19-Jan-18 00:54	1				

DL - Detection Limit
 LOD - Limit of Detection
 LOQ - Limit of quantitation
 LCL-UCL- Lower control limit - upper control limit
 Results reported to the DL.
 When reported, PFHxS, PFOA and PFOS include both linear and branched isomers
 Only the linear isomer is reported for all other analytes

1291.8

Sample ID: CH-AT-2RW58C-0118

EPA Method 537

Client Data			Laboratory Data							
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800080-05	Column:	BEH C18			
Project:	MCOLF/ATLANTIC	Date Collected:	11-Jan-18 09:35	Date Received:	12-Jan-18 12:52					
Location:	Drinking Water									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.434	4.90	9.79		B8A0083	16-Jan-18	0.255 L	19-Jan-18 01:07	1
PFOA	ND	1.06	4.90	9.79		B8A0083	16-Jan-18	0.255 L	19-Jan-18 01:07	1
PFOS	ND	1.02	4.90	9.79		B8A0083	16-Jan-18	0.255 L	19-Jan-18 01:07	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
13C2-PFHxA	SURR	94.8	70 - 130		B8A0083	16-Jan-18	0.255 L	19-Jan-18 01:07	1	
13C2-PFDA	SURR	94.5	70 - 130		B8A0083	16-Jan-18	0.255 L	19-Jan-18 01:07	1	

When reported, PFHxS, PFOA and PFOS include both linear and branched isomers
Only the linear isomer is reported for all other analytes

Results reported to the DL

LOD - Limit of Detection
LOQ - Limit of quantitation

DL - Detection Limit

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Sample ID: CH-AT-2FB58C-0118

EPA Method 537

Client Data			Laboratory Data							
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800080-06	Column:	BEH C18			
Project:	MCOLF ATLANTIC	Date Collected:	11-Jan-18 09:35	Date Received:	12-Jan-18 12:52					
Location:	Drinking Water									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.443	5.00	10.0		B8A0083	16-Jan-18	0.250 L	19-Jan-18 01:19	1
PFOA	ND	1.08	5.00	10.0		B8A0083	16-Jan-18	0.250 L	19-Jan-18 01:19	1
PFOS	ND	1.04	5.00	10.0		B8A0083	16-Jan-18	0.250 L	19-Jan-18 01:19	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
13C2-PFHxA	SURR	91.5	70 - 130		B8A0083	16-Jan-18	0.250 L	19-Jan-18 01:19	1	
13C2-PFDA	SURR	93.5	70 - 130		B8A0083	16-Jan-18	0.250 L	19-Jan-18 01:19	1	

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
LCL-UCL- Lower control limit - upper control limit
Results reported to the DL.
When reported, PFHxS, PFOA and PFOS include both linear and branched isomers
Only the linear isomer is reported for all other analytes

NW 1/29/18

Sample ID: CH-AT-1RW146-0118

EPA Method 537

Client Data				Laboratory Data						
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800080-07	Column:	BEH C18			
Project:	MCOLF ATLANTIC	Date Collected:	11-Jan-18 10:33	Date Received:	12-Jan-18 12:52					
Location:	Drinking Water									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	1.13	0.456	5.14	10.3	J	B8A0083	16-Jan-18	0.243 L	19-Jan-18 01:32	1
PFOA	10.4	1.11	5.14	10.3		B8A0083	16-Jan-18	0.243 L	19-Jan-18 01:32	1
PFOS	60.0	1.07	5.14	10.3		B8A0083	16-Jan-18	0.243 L	19-Jan-18 01:32	1
Labeled Standards	Type	% Recovery	Limits							
13C2-PFHxA	SURR	88.0	70 - 130							
13C2-PFDA	SURR	86.6	70 - 130							
					Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
						B8A0083	16-Jan-18	0.243 L	19-Jan-18 01:32	1
						B8A0083	16-Jan-18	0.243 L	19-Jan-18 01:32	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
LCL-UCL- Lower control limit - upper control limit
Results reported to the DL
When reported, PFHNS, PFOA and PFOS include both linear and branched isomers
Only the linear isomer is reported for all other analytes

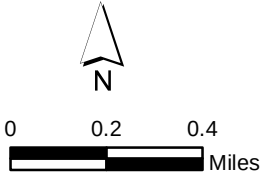
new 1/29/18

Sample ID: CH-AT-1FB146-0118										EPA Method 537				
Client Data					Laboratory Data									
Name:	CH2M Hill			Matrix:	Drinking Water			Lab Sample:	1800080-08			Column:	BEH C18	
Project:	MCOLF ATLANTIC			Date Collected:	11-Jan-18 10:33			Date Received:	12-Jan-18 12:52					
Location:	Drinking Water													
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution				
PFBS	ND	0.452	5.10	10.2		B8A0083	16-Jan-18	0.245 L	19-Jan-18 01:44	1				
PFOA	ND	1.10	5.10	10.2		B8A0083	16-Jan-18	0.245 L	19-Jan-18 01:44	1				
PFOS	ND	1.06	5.10	10.2		B8A0083	16-Jan-18	0.245 L	19-Jan-18 01:44	1				
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution					
13C2-PFHxA	SURR	76.8	70 - 130		B8A0083	16-Jan-18	0.245 L	19-Jan-18 01:44	1					
13C2-PFDA	SURR	85.1	70 - 130		B8A0083	16-Jan-18	0.245 L	19-Jan-18 01:44	1					
DL - Detection Limit	LOD - Limit of Detection			LCL-UCL - Lower control limit - upper control limit			When reported, PFHxS, PFOA and PFOS include both linear and branched isomers							
	LOQ - Limit of quantitation			Results reported to the DL			Only the linear isomer is reported for all other analytes							

11/29/18



- Legend**
- Proposed Sample Location
 - Public Water Supply Well
 - Direction of Groundwater Flow
 - MCOLF Atlantic - 1-mile zone
 - Base Boundary
 - Site Boundary (suspected source)
 - Parcels



1 inch = 0.4 mile
Imagery: Esri, 2016

Figure 3
Proposed Sampling Locations
Marine Corps Outlying Landing Field Atlantic
Atlantic Beach, North Carolina